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AUTHOR Conklin, Karen A.
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ABSTRACT

More than forty-six career programs are offered at Johnson County Community College (JCCC) in Kansas, in such areas as Cosmetology, Dental Assistance, and Travel and Tourism. These programs specialize in the types of industries that are currently growing at high rates, such as computer-related occupations and special education teachers. This document discusses each program with regard to employment information, salary information, and JCCC placement information. Highlights include: (1) 15 of the 20 fastest growing occupations are associated with health services or computer technology, for example, computer engineers, computer support specialists, physician assistants, and home health aides; (2) occupations requiring an Associate's Degree are estimated to increase by 31%, a more rapid growth rate than in any other group determined by educational level; (3) it is predicted that white non-Hispanics will continue to have the most growth in the labor force, with the women's share of the labor force increasing from 46.3% to 47.5%; (4) workers 45 and older are estimated to compose from 33% to 40% of the labor force; (5) occupations requiring a bachelor's degree are expected to grow by 22%, making education essential to a well paying job; and (6) most JCCC career programs' articulation agreements enable students to transfer smoothly to four-year institutions. (CJW)

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December 2000

OFFICE OF INSTITUTIONAL RESEARCH
JOHNSON COUNTY COMMUNITY COLLEGE

***EMPLOYMENT, SALARY & PLACEMENT
INFORMATION FOR
JOHNSON COUNTY COMMUNITY COLLEGE
CAREER PROGRAMS***

***Karen A. Conklin, Ed.S.
Market & Survey Research Analyst
Office of Institutional Research
Johnson County Community College
12345 College Boulevard
Overland Park, KS 66210-1299
(913) 469-8500, Ext. 3443***

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INTRODUCTION

Making informed career decisions requires reliable information about future job opportunities which will occur as a result of the relationships between the population, the labor force, and the demand for goods and services. This report provides this type of information for the career programs offered through Johnson County Community College. Of note is the fact that employment in occupations requiring an associate's degree is projected to increase 31%, faster than any other occupational group categorized by education and training.

Changes in consumer demands, technology, and many other factors will contribute to the continually changing employment structure in the U.S. economy. Job openings stem from both employment growth and replacement needs. Although job growth is an important factor in deciding on a career field, replacement needs are projected to account for 63% of the approximately 55 million job openings between 1998 and 2008. Thus, even occupations with slower than average growth, or little or no change in employment, may still offer many job openings.

General Predictions

Over the next decade the labor force is expected to become more diverse as the population of Hispanics, non-Hispanic blacks, Asians and other racial groups increases. However, white non-Hispanics will continue to have the largest numerical growth in the labor force, reflecting the large size of this group. Women's share of the labor force is expected to increase from 46.3% to 47.5%, and workers 45 and older are projected to increase from 33% to 40% of the overall labor force as the baby boomers age.

Employment in occupations that do not require postsecondary education are projected to grow by about 12% while occupations that require at least a bachelor's degree are projected to grow by almost 22%. Education also is essential to qualify for a high paying job--all but a few of the 50 highest paying occupations require a college degree. Most of the JCCC career programs have articulation agreements with various regional colleges and universities for students desiring to transfer to a 4-year program.

Over half of all new jobs projected within the next decade are in the rapidly growing services industry division, led by business services, health services, and social services. Professional specialty occupations comprise the fastest growing group within this division, and computer-related occupations, special education teachers, and social/recreation workers are among the fastest growing occupations in this group. Due to high replacement needs, service occupations are also projected to have the largest number of total job openings, especially in occupations with relatively low pay or limited training requirements.

LIST OF SOURCES

Local Data Sources

Johnson County Wage & Salary Report: 2000 Edition. County Economic Research Institute, Inc. in cooperation with the Kansas Department of Human Resources.

Career Program Completers: Class of 1998-99, a Short-Term Follow-up Study. Office of Institutional Research, Johnson County Community College. August 2000.

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Kansas City MSA Employment Outlook: Projections to 2006. Occupational Information Unit, Missouri Department of Labor & Industrial Relations. September 1999.

Kansas Occupational Outlook: 2006. "Kansas City Area." Kansas Department of Human Resources, Labor Market Information Services. Undated.

Kansas City, MO-KS National Compensation Survey: August 1998. U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 3095-57 published September 1999.

State Data Sources

Kansas Wage Survey: 2000 Edition. Kansas Department of Human Resources, Labor Market Information Services. May 2000.

Kansas Occupational Outlook: 2006. Kansas Department of Human Resources, Labor Market Information Services. Undated.

National Data Sources

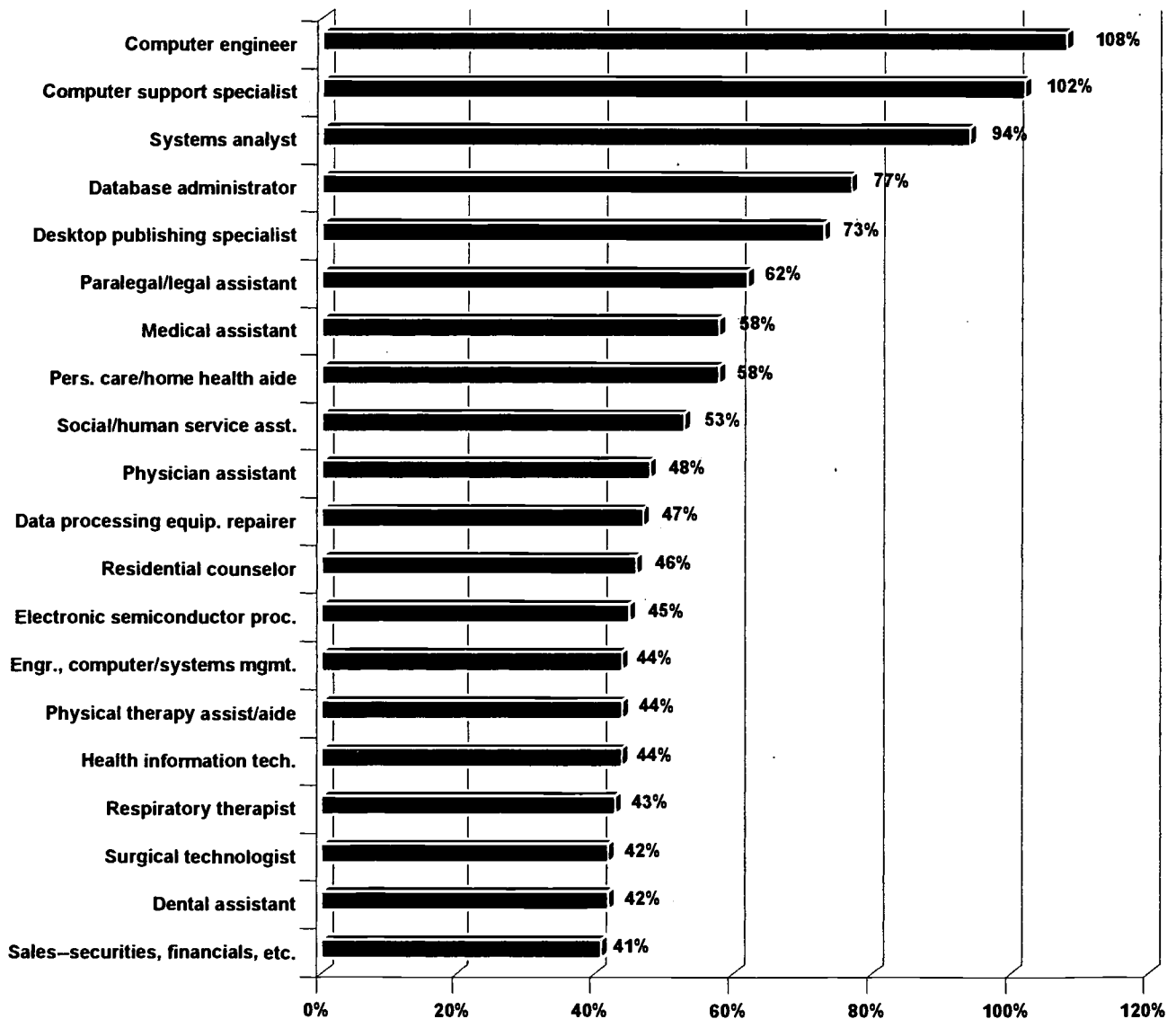
Occupational Outlook Handbook: 2000-01 Edition. U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2520. January 2000.

Occupational Outlook Quarterly. "The 1998-2008 Job Outlook in Brief." U.S. Department of Labor, Bureau of Labor Statistics. Spring 2000.

Occupational Projections and Training Data: 2000-01 Edition. U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 2521. May 2000.

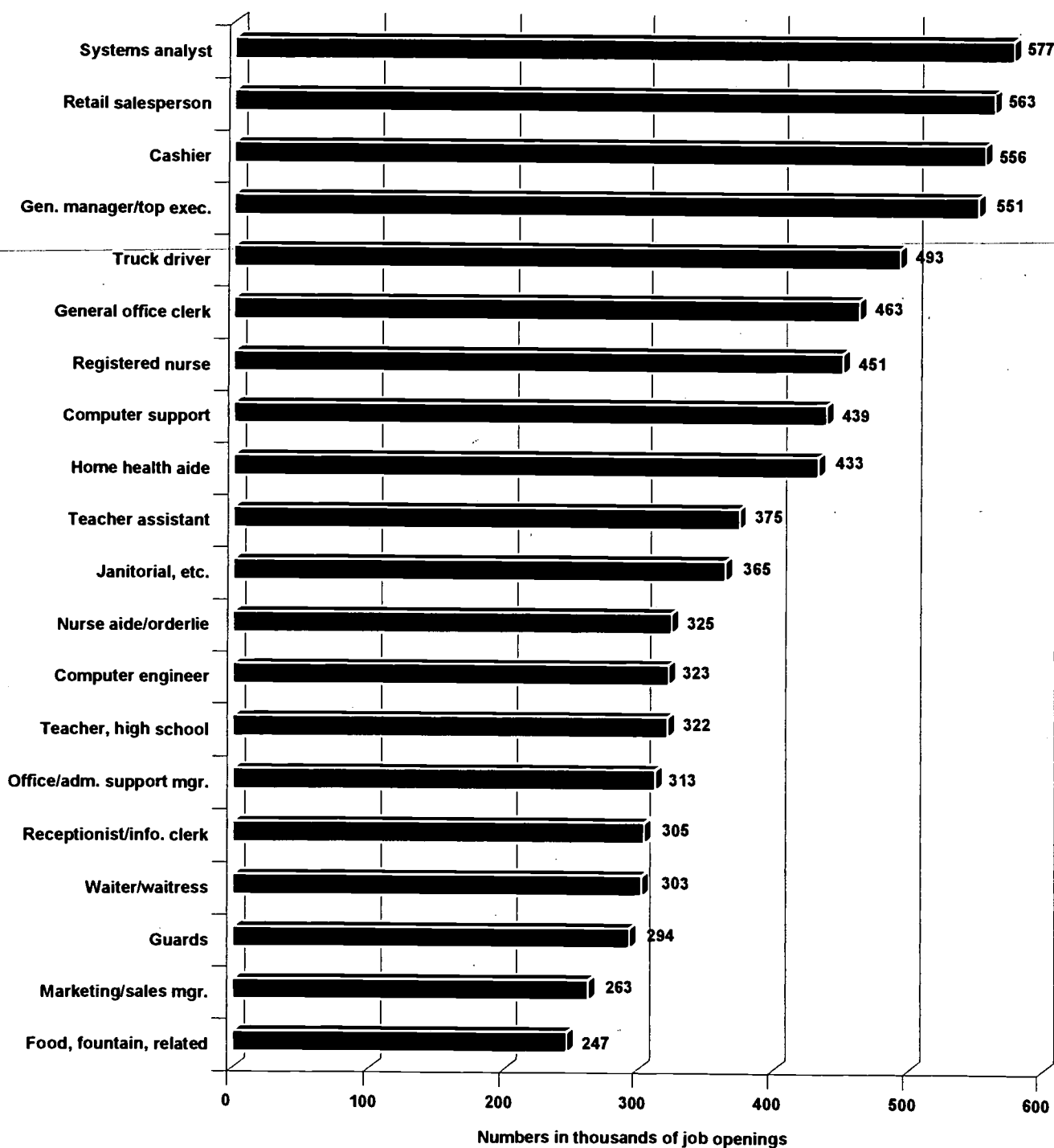
FASTEST GROWING OCCUPATIONS PROJECTED: 1998-2008

Fifteen of the 20 fastest growing occupations are associated with health services or computer technology. Most have high earnings and low unemployment rates. Percent of growth is not necessarily indicative of occupations in which the greatest number of jobs will be available, however.



OCCUPATIONS WITH THE LARGEST NUMBER OF JOB OPENINGS PROJECTED: 1998-2008

Almost two-thirds of the 55 million projected job openings over the 1998-2008 period will be due to the need to replace current workers who leave for various reasons.



ACCOUNTING

Employment of bookkeeping, accounting, and auditing clerks is expected to decline through the year 2008, and virtually all job openings will stem from replacement needs. However, the large size of the occupation ensures plentiful job openings, including many opportunities for temporary and part-time work. Although a growing economy will result in more financial transactions and other activities that require accounting services, the continuing spread of office automation will lift worker productivity and contribute to employment decline. In addition, organizations of all sizes will continue to consolidate various record keeping functions, thus reducing the demand for these workers.

Employment Information

Greater Kansas City Area: An estimated 12,910 bookkeeping, accounting, and auditing clerks were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Bookkeeping, accounting and auditing clerks held an estimated 19,030 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Bookkeeping, accounting and auditing clerks held 2,078,000 jobs in 1998, with 1,997,000 jobs projected by 2008 (-4%). Despite the anticipated drop in total jobs, approximately 325,000 annual openings are expected due to the need for replacement workers.

Salary Information

Greater Kansas City Area: Bookkeeping, accounting and auditing clerks employed in the Greater Kansas City area earned an average hourly wage of \$11.20 in August 1998. The lowest paid 10% earned less than \$8.28, and the highest 10% earned more than \$14.50 per hour. The average hourly wage for bookkeeping, accounting, and auditing clerks in Johnson, Leavenworth, Miami and Wyandotte Counties was \$11.66 in 1998. Half earned less than \$11.06, and half earned more.

State: Bookkeeping, accounting, and auditing clerks in Kansas earned an average hourly wage of \$10.09 in 1998. Half earned less than \$9.75 per hour, and half earned more.

National: Bookkeeping, accounting, and auditing clerks working full-time earned a median hourly wage of \$11.15 in 1998. However, region of the country, size of city, and type and size of establishment all influence salary levels. The level of industry or

technical expertise required and the complexity and uniqueness of a clerk's responsibilities may also affect earnings.

JCCC Career Program Completers: An average hourly wage of \$13.45 was reported by the 1998-99 accounting program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to accounting.

An average hourly wage of \$14.53 was reported by 1995-96 accounting program completers working full-time in a related job who responded to the long-term follow-up study conducted in 2000.

JCCC Placement Information

Three out of four accounting program completers responding to the short-term follow-up study of 1998-99 JCCC career program completers and 62% of those responding to the long-term follow-up study conducted in the summer of 2000 were employed in a job related to accounting.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

ADMINISTRATION OF JUSTICE/LAW ENFORCEMENT

Employment of police officers and detectives is expected to increase faster than the average for all occupations through the year 2008, due in part to a more security-conscious society and concern about drug-related crimes. However, because of the relatively attractive salaries and benefits, turnover is among the lowest of all occupations. Opportunities will be best in urban communities whose departments offer relatively low salaries and where the crime rate is relatively high. The number of qualified candidates exceeds the number of job openings in federal law enforcement agencies and in most state, local, and special police departments--resulting in increased hiring standards and selectivity by employers. Applicants with college training in police science, military police experience, or both should have the best opportunities.

Employment Information

Greater Kansas City Area: An estimated 4,080 individuals were employed as police detectives, police patrol officers, sheriffs, and deputy sheriffs in the Greater Kansas City area in 1998, with another 1,000 employed as police and detective supervisors.

State: A total of 5,030 workers were employed as police detectives, patrol officers, and sheriffs and deputy sheriffs in Kansas in 1998, with another 920 working as police and detective supervisors. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 1,147,000 individuals were employed in law enforcement occupations in 1998, with 1,501,000 jobs projected by 2008 (+31%). An average of 143,000 annual openings are anticipated, including replacements. About 446,000 police patrol officers held jobs in 1998, with 586,000 jobs anticipated by 2008 (+32%). Approximately 52,000 average annual openings, including replacements, are projected.

Salary Information

Greater Kansas City Area: Police and detectives in public service work earned an average hourly wage of \$17.66 in August 1998. The lowest paid 10% earned less than \$13.08 and the highest 10% earned more than \$22.58 per hour. Police and detective supervisors earned an average of \$24.38 per hour in August 1998. The average hourly wage in Johnson, Leavenworth, Miami and Wyandotte Counties in 1998 was \$19.64 for police detectives, \$16.31 for patrol officers, and \$11.80 for sheriffs and deputy sheriffs.

State: In 1998 the average hourly wage in Kansas was \$14.41 for police patrol officers; \$17.86 for detectives; and \$11.95 for sheriffs and deputy sheriffs, while police and detective supervisors earned an average of \$19.32 per hour.

National: In 1998, the median hourly wage of police and detective supervisors was \$23.41; detectives and criminal investigators earned \$22.20, police patrol officers earned \$18.13, and sheriffs and deputy sheriffs earned \$13.59 per hour.

JCCC Program Completers: A median hourly wage of \$15.00 was reported by 1998-99 the one administration of justice program completer responding to the 2000 short-term follow-up study who was working full-time in a related job. Police academy graduates for 1998-99 reported earning an average hourly wage of \$14.36 when contacted in fall 1999.

An average hourly wage of \$16.49 was reported by 1995-96 administration of justice program completers who responded to the 2000 long-term follow-up study and were working full-time in a related job.

JCCC Placement Information

Only one of the three 1998-99 administration of justice program completers responding to the January 2000 follow-up study were employed in a job related to administration of justice, and the rest were working in an unrelated job. All but one of the police academy graduates contacted in fall of 1999 were engaged in police work.

Approximately 60% of the administration of justice program completers responding to the 2000 long-term follow-up study of 1995-96 completers were employed in a related job, and the other 40% were working in unrelated jobs.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

AUTOMOTIVE TECHNOLOGY

Employment opportunities for automotive mechanics and service technicians are expected to increase about as fast as the average for all occupations through the year 2008. However, this large occupation needs a substantial number of entrants each year to replace workers who transfer to related occupations, retire, or stop working for other reasons. Automotive service technician careers offer an excellent opportunity for well-prepared people with a technical background, because these careers afford the opportunity for good pay and the satisfaction of highly skilled work with vehicles incorporating the latest in high technology. Persons without formal automotive training are likely to face heavy competition for entry-level jobs.

JCCC's automotive technology program holds master certification under guidelines for the National Automotive Technicians Education Foundation/Automotive Service Excellence (ASE). ASE-certified training programs must meet strict industry standards for tools, equipment, course of study, facilities, and instructor qualifications.

Employment Information

Greater Kansas City Area: An estimated 5,010 were employed as automotive mechanics in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings in these counties were not available.

State: Automotive mechanics held an estimated an estimated 6,790 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Automotive mechanics and service technicians held 790,000 jobs in 1998, with 922,000 jobs projected by 2008 (+17%). Approximately 119,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Automobile mechanics employed in the Greater Kansas City area earned an average hourly wage of \$20.58 in August 1998. The lowest paid 10% earned less than \$13.68 and the highest paid 10% earned more than \$29.60 per hour. In Johnson, Leavenworth, Miami and Wyandotte Counties automobile mechanics earned an average of \$14.33 in 1998. Half earned more than \$14.84, and half earned less.

State: Automotive mechanics in Kansas earned an average hourly wage of \$12.57 in 1998. Half earned more than \$11.58 per hour, and half earned less.

National: The median hourly earnings of automotive mechanics and service technicians, including commission, were \$13.16 in 1998. The lowest paid 10% earned less than \$7.44, and the highest 10% earned more than \$21.25 per hour. Many master technicians earn from \$70,000 to \$100,000 annually.

JCCC Program Completers: An average hourly wage of \$10.67 was reported by the three 1998-99 JCCC automotive technology program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to automotive technology.

An average hourly wage of \$13.00 was reported by 1995-96 JCCC automotive technology program completers working full-time in a related job who responded to the long-term follow-up study conducted in the summer of 2000.

JCCC Placement Information

Fully 80% of the automotive technology program completers responding to the 2000 short-term follow-up study of 1998-99 completers and all of those responding to the long-term follow-up study of 1995-96 conducted in the summer of 2000 were employed in a job related to automotive technology.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

BUSINESS OFFICE TECHNOLOGY

Projected employment of secretaries will vary by occupational specialty. Rapid growth in the health and legal services industries should lead to average growth for medical and legal secretaries. However, employment of secretaries who do not specialize in legal or medical work (about 7 out of 8) is expected to remain flat. Rapidly growing industries such as personnel supply, computer and data processing, and management and public relations will generate new job opportunities. Overall, job openings should be plentiful in this very large occupational category due to the need to replace workers who leave the field for various reasons.

Employment Information

Greater Kansas City Area: Secretaries held an estimated 20,810 jobs in the Greater Kansas City area in 1998, including 1,730 legal secretaries and 1,300 medical secretaries. Current projections of future employment needs and anticipated annual job openings were not available.

State: Secretaries held an estimated 27,090 jobs in Kansas in 1998. Of those, 2,170 were legal secretaries and 1,620 were medical secretaries. First-line clerical supervisors and managers, and administrative support workers held approximately 14,260 jobs in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: About 3,764,000 secretaries, stenographers and typists held jobs in 1998, with 3,744,000 jobs projected by 2008 (-.5%). Of those, 285,000 were legal secretaries (322,000 jobs projected; +13%), and 219,000 were medical secretaries (246,000 jobs projected; +12%). Approximately 518,000 average annual openings for secretaries, stenographers and typists are anticipated by 2008, including replacements.

Salary Information

Greater Kansas City Area: Secretaries earned an average hourly wage of \$11.58 in the Greater Kansas City area in August 1998. The lowest paid 10% earned less than \$8.50, and the highest paid 10% earned more than \$15.48 per hour. Legal secretaries employed in Johnson, Leavenworth, Miami or Wyandotte Counties earned an average hourly wage of \$13.58 in 1998; medical secretaries earned \$11.45, and all other secretaries earned \$11.52, on the average.

State: The average hourly wage for legal secretaries working in Kansas was \$11.18 in 1998. Medical secretaries earned an average of \$9.98, and all other categories of secretaries reported average hourly earnings of \$10.05 per hour. First-line clerical supervisors and managers, and administrative assistants earned an average hourly wage of \$14.58 in 1998. Half earned less than \$13.21 per hour, and half earned more.

National: The median hourly wage of secretaries, excluding legal and medical secretaries, was \$11.33 in 1998. The lowest paid 10% earned less than \$7.00, and the highest 10% earned more than \$17.33 per hour. Legal secretaries earned a median hourly wage of \$14.45, and medical secretaries earned \$10.76. Salaries vary a great deal, reflecting differences in skill, experience, and level of responsibility. Salaries also vary in different parts of the country and by industry. Certification in the field is usually rewarded by a higher salary.

JCCC Career Program Completers: An average hourly wage of \$12.93 was reported by 1998-99 business office technology program completers responding to the January 2000 short-term follow-up study who were working full-time in a related job. An average hourly wage of \$16.22 was reported by 1995-96 business office technology program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000. Males reported an average hourly wage of \$11.00 compared to \$17.26 for females.

JCCC Placement Information

Nearly 80% of the 1998-99 business office technology program completers responding to the January 2000 short-term follow-up study were employed in a job related to business office technology; approximately 5% were employed in an unrelated job, 5% were unemployed, and the remainder were pursuing additional education. Fully 90% of the 1995-96 business office technology program completers contacted in 2000 were employed in a related job and the remainder were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

CHEF APPRENTICE

Job openings for chefs, cooks, and other kitchen workers are expected to be plentiful through 2008. Employment growth will be spurred by increases in population, household income, and leisure time that will allow people to dine out and take vacations more often. In addition, growth in the number of two-income households will lead more families to opt for the convenience of dining out. Increases in the number of families and the more affluent, 55-and-older population will lead to a growing number of restaurants that offer table service and more varied menus--requiring higher-skilled cooks and chefs. Also, the popularity of fresh baked breads and pastries should ensure continued rapid growth in the employment of bakers.

Certification provides valuable formal recognition of the skills of a chef or cook. The chef apprenticeship program at JCCC is sponsored by the American Culinary Federation Educational Institute and the U.S. Department of Labor. Students must successfully complete all entry-level examinations as prescribed by the Apprenticeship Committee of the American Culinary Federation Education Institute.

Employment Information

Greater Kansas City Area: An estimated 5,970 restaurant cooks and 3,290 institution or cafeteria cooks were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Restaurant cooks held an estimated 6,860 jobs in Kansas in 1998, and institutional or cafeteria cooks held an estimated 6,600 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Restaurant cooks held approximately 783,000 jobs in 1998, with 929,000 jobs projected by 2008 (+19%). Approximately 263,000 average annual openings, including replacements, are anticipated.

Salary Information

JCCC Career Program Completers: An average annual salary of \$23,774 was reported by the 1998-99 chef apprentice program completers responding to the January 2000 short-term follow-up study, and an average annual salary of \$26,832 was reported by the three 1995-96 chef apprentice program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000.

Greater Kansas City Area: Cooks employed in the Greater Kansas City area earned \$18,678 on the average in 1998. The lowest paid 10% earned less than \$13,458 and the highest paid 10% earned more than \$22,360 per year. Restaurant cooks working in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary

of \$17,326 in 1998, and institution or cafeteria cooks earned \$15,808. Data for chefs as a separate occupational category were unavailable.

State: The average annual salary for restaurant cooks in Kansas was \$15,558 in 1998, while institutional or cafeteria cooks earned \$15,787 on the average. Data for chefs as a separate occupational category were unavailable.

National: Wages are generally highest in elegant restaurants and hotels, where many executive chefs earn over \$38,000 annually. Half of the restaurant cooks earned more than \$16,245 in 1998, and half earned less. Half of the bread and pastry bakers earned more than \$16,994 in 1998, and half earned less.

JCCC Placement Information

All of chef apprentice program completers responding to the 2000 follow-up studies of the 1998-99 career program completers (short-term follow-up) and the 1995-96 completers (long-term follow-up) were employed in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers. Caution should also be exercised when interpreting local, state and national salary data as these data do not differentiate between salaries of postsecondary chef apprentice career program completers and wages earned by less qualified cooks.

CIVIL ENGINEERING TECHNOLOGY

Overall, employment of engineering technicians is expected to increase as fast as the average for all occupations through the year 2008. Employment of civil engineering technicians experience greater cyclical fluctuations than others. As technology becomes more sophisticated, employers continue to look for technicians who are skilled in new technology and require a minimum of additional job training. Opportunities will be best for individuals with an associate's degree in engineering technology.

Employment Information

Greater Kansas City Area: Civil engineering technicians and technologists held an estimated 660 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Civil engineering technicians and technologists held an estimated 1,090 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Engineering technicians held approximately 771,000 jobs in 1998, with 897,000 jobs are projected by 2008 (+16%). Approximately 114,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: The average annual salary was \$39,146 for civil engineering technicians and technologists employed in Johnson, Leavenworth, Miami and Wyandotte Counties in 1998. Half earned less than \$34,819 per year and half earned more.

State: Civil engineering technicians and technologists in Kansas earned an average annual salary of \$32,926 in 1998. Half earned less than \$32,219 and half earned more.

National: Median annual earnings of engineering technicians and technologists in 1998 were \$37,310. The lowest paid 10% earned less than \$22,230 and the highest 10% earned more than \$68,720.

JCCC Career Program Completers: Completers of the civil engineering technology program who were employed full-time in a related job and responded to the short-term follow-up study of the Class of 1998-99 reported an average annual salary of \$40,768.

Respondents to the 2000 long-term follow-up of 1995-96 completers who were working full-time in a related job earned an average annual salary of \$35,360.

JCCC Placement Information

All of the completers of the civil engineering technology program who responded to the short-term follow-up study of 1998-99 career program completers and the 2000 long-term follow-up study of 1995-96 completers were employed in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

COMMUNICATION DESIGN

Employment of visual artists is expected to grow faster than the average for all occupations through the year 2008. Because the visual arts attract many talented people with creative ability, the number of aspiring visual artists continues to grow. Consequently, competition for both salaried jobs and freelance work in some, but not all, areas of visual arts is expected to be keen. Talented fine artists who have developed a mastery of artistic techniques and skills, including computer skills, will have the best job prospects. The need for visual artists to illustrate and animate materials for magazines, journals, and other printed or electronic media will spur demand for illustrators of all types. Very good opportunities for graphic designers are expected, and continuing growth of the Internet should provide many job opportunities.

Employment Information

Greater Kansas City Area: Artists and related workers held an estimated 1,730 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Artists and commercial artists held an estimated 1,560 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: About 308,000 artists and commercial artists were employed nationwide in 1998, with 388,000 jobs projected by 2008 (+26%). Approximately 59,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Artists and related workers employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary of \$31,470 in 1998. Half earned less than \$29,203 per year and half earned more.

State: The average annual salary for artists and related workers in Kansas was \$28,330 in 1998. Half of those employed in this occupation earned less than \$26,874 per year and half earned more.

National: Median annual earnings of visual artists were about \$31,690 in 1998. The lowest paid 10% earned less than \$17,910 and the highest 10% earned more than \$64,580 per year. In 1997 those employed by newspapers earned an average of \$24,100 while those employed in advertising averaged \$34,800.

JCCC Career Program Completers: An average annual salary of \$28,018 was reported by 1998-99 communication design program completers responding to the January 2000

short-term follow-up study who were working full-time in a job related to communication design.

An average annual salary of \$34,528 was reported by 1995-96 communication design program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000. Males reported an average annual salary of \$32,074 compared to \$38,230 for females.

JCCC Placement Information

Fully 91% of the 1998-99 communication design program completers responding to the January 2000 short-term follow-up study were employed in a job related to communication design.

Three out of four of the 1995-96 communication design program completers contacted in 2000 were employed in jobs related to communication design and the rest were working in unrelated jobs.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

COMPUTER INFORMATION SYSTEMS

Employment of computer programmers is expected to grow faster than the average for all occupations through 2008. Jobs for both systems and applications programmers should be plentiful in data processing service firms, software houses, and computer consulting businesses. These types of establishments are part of computer and data processing services, which is projected to be the fastest growing industry in the economy. However, as the level of technological innovation and sophistication increases, programmers will continue to face increasing competition from programming businesses overseas where much routine work can be outsourced at a lower cost. Because demand fluctuates with employers' needs, job seekers should keep up to date with the latest skills and technologies.

Employment Information

Greater Kansas City Area: An estimated 7,010 computer programmers, 4,590 computer support specialists, and 820 database administrators were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Computer programmers held an estimated 4,530 jobs in Kansas in 1998, database administrators held 900 jobs, and computer support specialists held 4,390 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Database administrators, computer support specialists, and all other computer scientists (excluding computer engineers, and systems analysts) held 613,000 jobs in 1998, with 1,236,000 jobs projected through 2008 (+102%). Approximately 160,000 average annual openings, including replacements, are anticipated. Computer programmers held 648,000 jobs in 1998, with 839,000 jobs projected by 2008 (+30%). Approximately 75,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Computer programmers employed in the Greater Kansas City area earned an average annual salary of \$47,050 in August 1998. The top 10% earned more than \$59,322 and the bottom 10% earned less than \$30,618 per year. Computer programmers employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average of \$50,419; computer support specialists averaged \$41,350 and database administrators averaged \$49,462 per year.

State: The average annual salary for computer programmers in Kansas was \$47,299 in 1998. Database administrators earned an average annual salary of \$43,555 and computer support specialists averaged \$38,438 per year.

National: Median earnings of programmers 1998 were \$47,550 per year. The lowest paid 10% earned less than \$27,670, and the highest paid 10% earned more than \$88,730. According to Robert Half International, Inc., starting salaries in 1999 ranged from \$38,000 to \$50,500 for applications development programmers and from \$49,000 to \$63,000 for systems programmers. Average starting salaries for Internet programmers ranged from \$48,800 to \$68,300 per year.

JCCC Career Program Completers: An average annual salary of \$39,416 was reported by 1998-99 JCCC computer information systems program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to computer information systems. Males, reported an average annual salary of \$43,888 compared to \$36,296 reported by females.

An average annual salary of \$49,816 was reported by 1995-96 computer information systems program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000. Male completers responding to the study reported average earnings of \$74,464 compared to \$37,482 reported by female respondents. This is the largest gender-related difference reported in any of the JCCC career programs, but may be at least partially attributable to the fact that 40% of the males responding to the survey were working full-time as consultants.

JCCC Placement Information

Approximately three out of four of the 1998-99 computer information systems program completers responding to the January 2000 short-term follow-up study were working in a job related to computer information systems. Approximately 15% were working in unrelated jobs, 6% were pursuing additional education, and less than 3% were unemployed and looking for work.

Over 82% of the 1995-96 computer information systems program completers contacted for the long-term follow-up study conducted in 2000 were working in related jobs, 6% were unemployed and looking for work, and the remainder were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

CONSTRUCTION MANAGEMENT

Employment of construction managers is expected to increase as fast as the average for all occupations through the year 2008. The increasing complexity of construction projects, the sophisticated technology, and the proliferation of laws setting standards for buildings and construction materials, worker safety, energy efficiency, and environmental protection, should increase demand for management level personnel within the construction industry. Employers prefer applicants with previous construction work experience who can combine a strong background in building technology with proven supervisory or managerial skills. In addition to job growth, many openings should result annually from the need to replace workers who transfer to other occupations or leave the labor force.

Employment Information

Greater Kansas City Area: An estimated 2,210 construction managers were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Construction managers held an estimated 2,370 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Construction managers held 270,000 jobs nationwide in 1998, with 308,000 jobs projected by 2008 (+14%). Approximately 33,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Construction managers employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary of \$50,357 in 1998. Half earned less than \$45,989 and half earned more.

State: The average annual salary for construction managers in Kansas was \$45,635 in 1998. Half of those employed as construction managers earned less than \$41,725 and half earned more.

National: Earnings of salaried construction managers and incomes of self-employed contractors vary depending upon the size and nature of the construction project, its geographic location, and economic conditions. Median annual earnings of construction managers in 1998 were \$47,610. The lowest paid 10% earned less than \$28,970 and the highest 10% earned more than \$89,480.

JCCC Salary and Placement Information

Only one construction management program completer responded to the 2000 short-term follow-up study of 1998-99 career program completers. That individual was employed full-time in a related job and reported an average annual salary of \$31,200.

This program has not been in existence long enough to obtain responses to recent long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

CORRECTIONAL SERVICES

Employment of correctional officers is expected to be very favorable through 2008. The need to replace correctional officers who transfer to other occupations or leave the labor force, coupled with rising employment demand, will generate thousands of job openings each year. Increasing public concern about the spread of crime and illegal drugs--resulting in more arrests and convictions--and the adoption of mandatory sentencing guidelines calling for longer sentences and reduced parole for inmates will spur demand for correctional officers. Some employment opportunities will also arise in the private sector as public authorities contract with private companies to provide and staff corrections facilities. Correctional institutions increasingly seek correctional officers with postsecondary education, particularly in psychology, criminal justice, police science, criminology, and related fields.

Employment Information

Greater Kansas City Area: An estimated 1,960 correction officers and jailers were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: An estimated 4,480 correction officers and jailers were employed in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 383,000 correction officers held jobs in 1998, with 532,000 jobs projected by 2008 (+39%). About 65,000 average annual openings are anticipated, including replacements.

Salary Information

Greater Kansas City Area: The average hourly wage for correction officers and jailers employed in Johnson, Leavenworth, Miami and Wyandotte Counties was \$12.96 in 1998. Half earned less than \$12.59 per hour and half earned more.

State: The average hourly wage for correction officers and jailers employed in Kansas was \$11.84 in 1998. Half of the corrections officers and jailers in the state earned less than \$11.35 per hour, and half earned more.

National: Median annual earnings of correctional officers were \$28,540 in 1998. The lowest paid 10% earned less than \$18,810 and the top 10% earned more than \$46,320. The variance between the low and high starting salaries exists for all positions and personnel of all experience levels. Beginning salaries for state correctional officers ranged from \$14,600 in California to \$34,100 in New Jersey. The median salary for correctional officers with more than one year of experience ranged from \$18,000 in Mississippi to \$44,800 in New Jersey.

JCCC Salary and Placement Information

Correctional services is a co-operative program offered at Longview Community College as an option within the JCCC administration of justice/law enforcement program. Salary and placement information for correctional services program completers is therefore incorporated into data reported for the administration of justice program.

COSMETOLOGY

Overall, employment of cosmetologists is expected to grow about as fast as the average for all occupations through 2008, stemming from increasing population, incomes, and demand for cosmetology services. The number of self-employed, booth-renting cosmetologists should continue to grow, and opportunities will be better for those licensed to provide a broad range of cosmetology services. A surge in the demand for coloring services by teenagers and aging baby boomers, including men, will create many job openings. Also, the rapid growth in the number of spa salons that provide a full range of services, including beauty wraps, pedicures, and massages, will generate numerous job openings for estheticians and cosmetologists trained to provide skin care services. In addition, jobs for manicurists will continue to climb. Competition is expected for jobs and customers at the higher paying, prestigious salons.

Employment Information

Greater Kansas City Area: Hairdressers and hairstylists held an estimated 2,830 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Hairdressers, hairstylists, and cosmetologists held an estimated 3,340 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Hairdressers, hairstylists, and cosmetologists held about 605,000 jobs in 1998, with 667,000 jobs projected by 2008 (+10%). Approximately 73,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Hairdressers and hairstylists employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$8.77 in 1998. Half earned less than \$7.87 per hour and half earned more.

State: Hairdressers, hairstylists and cosmetologists in Kansas earned an average hourly wage of \$9.03 in 1998. Half earned less than \$8.09 per hour and half earned more.

National: Median annual earnings in 1998 for full-time cosmetologists were \$15,150, excluding tips. The lowest paid 10% earned less than \$11,510, and the top 10% earned more than \$27,270. A number of factors determine the total income, including size and location of the salon, the number of hours worked, customers' tipping habits, and the competition from other salons. The ability to attract and hold regular customers also are key factors in determining earnings.

JCCC Career Program Completers: An average hourly wage of \$13.23 was reported by 1998-99 JCCC cosmetology program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to cosmetology.

JCCC Placement Information

Over 76% of the cosmetology program completers responding to the 2000 short-term follow-up study of JCCC career program completers were employed in a related job; 5% were unemployed and looking for work, 5% were out of the labor force altogether, and the remaining respondents were working in an unrelated job.

This program has not been offered at JCCC for a sufficient length of time to offer results from the long-term follow-up studies of JCCC career program completers.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

DENTAL ASSISTANT

Employment is expected to grow much faster than the average for dental assistants through 2008. Population growth and greater retention of natural teeth by middle-aged and older people will fuel demand for dental services. Older dentists, who are less likely to employ assistants, will leave and be replaced by recent graduates, who are more likely to use one or even two assistants. Numerous job openings for dental assistants will arise from the need to replace assistants who leave the occupation. For many, this entry-level occupation provides basic training and experience and serves as a stepping-stone to more highly skilled and higher paying jobs.

Employment Information

Greater Kansas City Area: Dental assistants held an estimated 1,380 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Dental assistants held an estimated 2,420 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Dental assistants held 229,000 jobs nationwide in 1998, with 325,000 jobs projected by 2008 (+42%). Approximately 56,000 average annual openings are expected, including replacements.

Salary Information

Greater Kansas City Area: Dental assistants working in Johnson, Leavenworth, Miami or Wyandotte County earned an average hourly wage of \$10.19 in 1998. Half earned less than \$10.17 per hour, and half earned more.

State: Dental assistants earned an average hourly wage of \$9.45 in Kansas in 1998. Half earned less than \$9.40 per hour, and half earned more.

National: Median hourly earnings of dental assistants were \$10.88 in 1998. The lowest paid 10% earned less than \$7.06 and the highest 10% earned more than \$15.71 per hour.

JCCC Salary and Placement Information

Dental assisting is a cooperative program through the Metropolitan Community Colleges and has not been offered by Johnson County Community College long enough for salary and placement information for program completers to be available.

DENTAL HYGIENE

Employment of dental hygienists is expected to grow much faster than the average for all occupations through the year 2008 in response to increasing demand for dental care and the greater substitution of hygienists for services previously performed by dentists. Job prospects are expected to remain very good unless the number of dental hygienist program graduates grows much faster than during the last decade and results in a much larger pool of qualified applicants, or if more states pass legislation allowing less qualified dental assistants to perform duties previously within the purview of dentists or trained dental hygienists only.

Employment Information

Greater Kansas City Area: Dental hygienists employed in the Greater Kansas City area held an estimated 790 jobs in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Dental hygienists held an estimated 1,340 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Dental hygienists held 143,000 jobs in 1998, with 201,000 jobs projected by 2008 (+41%). Approximately 15,000 average annual openings, including replacements, are anticipated. Dental hygienists are listed among the fastest growing occupations between 1996 and 2006.

Salary Information

Greater Kansas City Area: Dental hygienists employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$20.88 in 1998. Half earned less than \$20.76 per hour and half earned more.

Kansas: Dental hygienists employed in Kansas earned an average hourly wage of \$20.81 in 1998. Half earned less than \$21.26 per hour, and half earned more.

National: Median hourly earnings of dental hygienists were \$22.06 in 1998. The lowest paid 10% earned less than \$12.37, and the highest 10% earned more than \$38.81 per hour. Earnings vary by geographic location, employment setting, and years of experience. Dental hygienists who work in private dental offices may be paid on an hourly, daily, salary, or commission basis. Hygienists who work for school systems, public health agencies, the federal government, or state agencies usually have substantial benefits.

JCCC Career Program Completers: An average hourly wage of \$24.68 was reported by 1998-99 JCCC dental hygiene program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to dental hygiene.

An average hourly wage of \$27.60 was reported by 1995-96 dental hygiene program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000.

JCCC Placement Information

All of the dental hygiene program completers responding to both the short-term study and the long-term follow-up studies conducted in 2000 were employed in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

DRAFTING TECHNOLOGY

Employment of drafters is expected to grow more slowly than the average for all occupations through 2008. Although industrial growth and increasingly complex design problems associated with new products and manufacturing will increase the demand for drafting services, greater use of CAD equipment by architects and engineers, as well as drafters, should offset this growth in demand. Many job openings, however, are expected to arise as drafters move to other occupations or leave the labor force. Opportunities should be best for individuals who have at least 2 years of postsecondary training in a drafting program that provides strong technical skills, and who have considerable skill and experience using CAD systems.

Employment Information

Greater Kansas City Area: Drafters held an estimated 2,590 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Drafters held an estimated 3,060 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Drafters held about 283,000 jobs in 1998, with 301,000 jobs projected by 2008 (+6%). Approximately 30,000 average annual openings are anticipated due primarily to the need for replacements.

Salary Information

Greater Kansas City Area: The average hourly wage for drafters employed in the Greater Kansas City area was \$14.67 in August 1998. The highest paid 10% earned more than \$19.47, and the lowest paid 10% earned less than \$10.50 per hour. The average hourly wage for drafters employed in Johnson, Leavenworth, Miami and Wyandotte Counties was \$15.20 in 1998. Half earned less than \$14.25 per hour and half earned more.

State: The average hourly wage for drafters in Kansas was \$15.27 in 1998. Half earned less than \$13.93 per hour, and half earned more.

National: Median hourly earnings of drafters were \$15.56 in 1998. The lowest paid 10% earned less than \$10.19 and the highest 10% earned more than \$24.84 per hour.

JCCC Career Program Completers: An average hourly wage of \$13.33 was reported by the 1998-99 drafting program completers employed full-time in a related job who responded to the January 2000 short-term follow-up study of JCCC career program completers.

An average hourly wage of \$14.47 was reported by the 1995-96 drafting program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000.

JCCC Placement Information

One in two respondents to the 2000 short-term follow-up of 1998-99 drafting program completers and 60% of respondents to the 2000 long-term follow-up of 1995-96 completers were working in a job related to drafting.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

EARLY CHILDHOOD EDUCATION

Employment of preschool teachers and child-care workers is projected to increase faster than the average for all occupations through the year 2008. Future employment growth of preschool teachers and child-care workers will be rapid, but nevertheless considerably slower than in the last two decades because demographic changes that fueled much of the past enrollment growth are projected to slow. The number of children under 5 years of age is expected to rise very little by the year 2008, but high turnover, combined with job growth, is expected to create many openings for preschool teachers and child-care workers. Qualified persons who are interested in this work should have little trouble finding and keeping a job.

The training and qualifications required of preschool teachers and child-care workers vary widely. Each state has its own licensing requirements that regulate caregiver training, ranging from a high school diploma to community college courses to a college degree in child development or early childhood education. Some states require continuing education for workers in this field. JCCC has articulation agreements for transfer from this program into a bachelor's degree program at several regional colleges and universities.

Employment Information

Greater Kansas City Area: Child care workers held an estimated 2,550 jobs in the Greater Kansas City area in 1998, and preschool teachers held approximately 2,310 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Preschool teachers held an estimated 1,970 jobs in Kansas in 1998, and child care workers held approximately 3,520 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Child-care providers held 905,000 jobs nationwide in 1998, with 1,141,000 jobs projected by the year 2008 (+26%). Approximately 329,000 annual average job openings, including replacements, are anticipated. Preschool teachers held 346,000 jobs in 1998, with 437,000 jobs projected by 2008 (+27%). Approximately 42,000 average annual openings are anticipated, including replacements.

Salary Information

Greater Kansas City Area: Child care workers earned an average hourly wage of \$8.30 in the Greater Kansas City area in August 1998. According to data provided by the Kansas Department of Human Resources, in Johnson, Leavenworth, Miami and Wyandotte Counties, child care workers averaged \$6.89 per hour, while preschool teachers earned an average of \$7.59 in 1998.

State: In 1998, preschool teachers earned an average hourly wage of \$8.56 while child-care workers in Kansas averaged \$6.53 per hour. Half earned less than \$6.22 per hour, and half earned more.

National: Pay depends on the educational attainment of the worker and establishment type. Although the pay is generally very low, more education means higher earnings in some cases. Median annual wages of preschool teachers were \$8.32 in 1998. The lowest paid 10% earned less than \$5.77, and the highest 10% earned more than \$14.57 per hour.

JCCC Salary and Placement Information

The one respondent to the 2000 follow-up study of 1998-99 career program completers who was from the early childhood education program was employed full-time in a related job and reported an average hourly wage of \$8.06.

This program has not been offered by Johnson County Community College long enough for results of a long-term follow-up study to be available.

ELECTRICAL TECHNOLOGY

Employment of electricians is expected to increase about as fast as the average for all occupations through 2008. Job opportunities for skilled electricians are expected to be very good as the growth in demand outpaces the supply of workers trained in this craft. Increasingly, new buildings will be prewired during construction to accommodate use of computers and telecommunications equipment. More and more factories will be using robots and automated manufacturing systems. Installation of this equipment, which is expected to increase, should also stimulate demand for electricians. A shortage of skilled workers during this next decade is anticipated because of the smaller pool of young workers entering training programs.

Most localities require electricians to be licensed. Although licensing requirements vary from area to area, electricians generally must pass an examination that tests their knowledge of electrical theory, the National Electrical Code, and local electric and building codes. The JCCC program prepares students for this type of examination.

Employment Information

Greater Kansas City Area: Electricians held an estimated 4,930 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Electricians held an estimated 5,560 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Electricians held 656,000 jobs in 1998, with 724,000 jobs projected by 2008 (+10%). An average of 93,000 annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Electricians employed in the Greater Kansas City area earned an average hourly wage of \$19.40 in August 1998. The lowest paid 10% earned less than \$12.61, and the highest paid 10% earned more than \$24.46 per hour.

State: The average hourly wage for electricians employed in Kansas was \$18.44 in 1998. Half earned less than \$18.28 per hour, and half earned more.

National: Median hourly earnings of electricians were \$16.98 in 1998. The lowest paid 10% earned less than \$10.07, and the highest 10% earned more than \$30.99 per hour. Depending on experience, apprentices usually start at between 30% and 50% of the rate paid to experienced electricians.

JCCC Career Program Completers: An average hourly wage of \$19.09 was reported by the 1998-99 electrical technology program completers employed full-time in a related job who responded to the January 2000 short-term follow-up study of JCCC career program completers.

Respondents to the long-term follow-up study of 1995-96 electrical technology program completers who were working full-time in a related job reported an average hourly wage of \$25.00.

JCCC Placement Information

Nearly 82 % of the electrical technology program completers who responded to the 2000 short-term follow-up study and all of those responding to the 2000 long-term follow-up study were employed in a job related to electrical technology.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

ELECTRONICS ENGINEERING TECHNOLOGY

Overall, employment of engineering technicians in general is expected to increase about as fast as the average for all occupations through 2008. Increasing demand for more sophisticated electrical and electronic products, as well as expansion of these products and systems into all areas of industry and manufacturing processes, will contribute to average growth in jobs for electrical and electronics engineering technicians. As technology becomes more sophisticated, employers continue to look for technicians who are skilled in the new technology and require a minimum of additional job training. Opportunities will be best for individuals with an associate's degree in engineering technology.

Employment Information

Greater Kansas City Area: Electrical and electronic technicians held an estimated 2,180 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Electrical and electronics technicians held an estimated 2,860 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Electrical and electronics technicians and technologists held about 335,000 jobs in 1998, with 391,000 jobs projected by 2008 (+17%). Approximately 43,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Electrical and electronic technicians earned an average hourly wage of \$18.48 in the Greater Kansas City area in August 1998. The lowest paid 10% earned less than \$15.00, and the highest 10% earned more than \$25.11 per hour. In Johnson, Leavenworth, Miami and Wyandotte Counties electrical and electronic engineering technicians and technologists earned \$18.82 per hour, on the average. Half earned less than \$18.05 per hour, and half earned more.

State: The average hourly wage for electrical and electronic engineering technicians and technologists in Kansas was \$17.70 in 1998. Half of these technicians earned less than \$17.05 per hour, and half earned more.

National: Median hourly earnings of electrical and electronics engineering technicians were \$17.29 in 1998. The lowest paid 10% earned less than \$10.44, and the highest 10% earned more than \$30.07 per hour.

JCCC Career Program Completers An average hourly wage of \$15.84 was reported by 1998-99 electronics engineering technology program completers responding to the January 2000 short-term follow-up study who were employed in a full-time related job.

An average hourly wage of \$16.32 was reported by 1995-96 JCCC electronics engineering program completers responding to the 2000 long-term follow-up study who were working full-time in a job related to electronics.

JCCC Placement Information

Over 73% of electronics engineering technology program completers who responded to the 2000 short-term follow-up study of 1998-99 completers were working in a job related to their JCCC career program. Approximately 13% were employed in unrelated jobs, 7% were pursuing additional education, and 7% were unemployed at the time the study was conducted.

All of the 1995-96 electronics engineering technology program completers contacted in 2000 were employed in a job related to electronics engineering technology.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

**EMERGENCY MEDICAL SCIENCE:
EMERGENCY MEDICAL TECHNOLOGY/EMT (BASIC)
MOBILE INTENSIVE CARE TECHNOLOGY/MICT (PARAMEDIC)**

Employment of EMTs is expected to grow much faster than the average for all occupations through 2008. Much of this growth will occur as positions change from volunteer to paid and as the population grows, particularly older age groups that are the greatest users of emergency medical services. Most opportunities for EMT's and paramedics are expected to arise in hospitals and private ambulance services. Competition will be greater for jobs in local government, including fire, police, and third service rescue squad departments where job growth for these workers is expected to be slower.

Employment Information

Greater Kansas City Area: Emergency medical technicians held an estimated 1,060 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Emergency medical technicians held an estimated 2,210 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 150,000 emergency medical technicians and paramedics were employed nationwide in 1998, with 197,000 jobs projected by 2008 (+32%). About 23,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Emergency medical technicians employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary of \$20,550 in 1998. Half earned more than \$21,278 and half earned less.

State: The average salary for emergency medical technicians in Kansas was \$16,245 in 1998. Half of those employed as EMT's earned less than \$14,830 per year, and half earned more.

Regional: Average 2000 annual salaries within the 6 state area comprising the South Central United States were: EMT-Basic, \$25,909; EMT-Intermediate, \$25,732, and Paramedic, \$31,217. (*Journal of Emergency Medical Services*, Sept. 2000, p. 52).

National: Median annual earnings of EMTs were \$20,290 in 1998. The lowest paid 10% earned less than \$12,700 and the highest 10% earned more than \$34,480. Earnings of EMTs depend on the employment setting and geographic location as well as the individual's training and experience.

According to national data reported in the *Journal of Emergency Medical Services* (Sept. 2000, p. 51), EMT-Basics earned an average salary of \$31,670 in 2000, EMT-Intermediates earned \$30,283, and EMT-Paramedics earned \$35,689.

JCCC Career Program Completers: An average annual salary of \$23,691 for EMT completers and \$29,328 for MICT (paramedic) completers working full-time in a related job were reported by respondents to the January 2000 short-term follow-up study of 1998-99 career program completers. Male EMT completers reported average earnings of \$23,130 vs. \$24,232 reported by females.

An average annual salary of \$27,664 for EMT's and \$34,965 for MICT's was reported by 1995-96 completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000. Male EMT completers reported an average hourly wage of \$27,914 vs. \$26,520 reported by females.

JCCC Placement Information

Nearly 60% of EMT and 100% of MICT program completers responding to the January 2000 short-term follow-up study of 1998-99 completers were working in a job related to emergency medical technology. Approximately 20% of EMT's were employed in an unrelated job and the other 20% were pursuing additional education.

Three out of four of the 1995-96 EMT completers and 80% of the MICT completers responding to the long-term follow-up study conducted in 2000 were working in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative all career program completers. Skills and training requirements for EMT-basic, EMT-intermediate, and paramedic positions are available from the JCCC Office of Institutional Research (COM 305) or from the director for the Medical Intensive Care Technology program (SCI 110-D).

FASHION MERCHANDISING

(Note. Since no separate occupational category was detailed for fashion merchandising in available sources, employment and salary information is provided for related occupations for which completers of this program may qualify.) Employment of purchasers and buyers is expected to grow more slowly than the average for all occupations through 2008. In retail trade, mergers and acquisitions have forced the consolidation of buying departments, eliminating jobs. In addition, larger retail stores are removing their buying departments from geographic markets and centralizing them at their headquarters, eliminating more jobs. Consequently, more job openings will result from the need to replace workers who transfer to other occupations or leave the labor force.

However, fashion merchandising program completers will always find ample employment opportunities as retail salespersons and have better opportunities for advancement than nonprogram completers. Overall, although employment of retail sales worker supervisors and managers is expected to grow more slowly than the average for all occupations through the year 2008, employment of retail sales workers is expected to increase about as fast as the average due to anticipated growth in retail sales created by a growing population.

Employment Information

Greater Kansas City Area: Wholesale and retail buyers held an estimated 610 jobs in the Greater Kansas City area in 1998, first-line supervisors and managers of sales personnel held 17,430 jobs, and retail salespersons held approximately 28,550 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Wholesale and retail buyers held approximately 950 jobs in Kansas in 1998, and retail sales workers held approximately 41,070 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Wholesale and retail buyers held 118,000 jobs in 1998, with the same number of jobs projected by 2008. However, approximately 31,000 average annual job openings are anticipated due to the need for replacements. Retail salespersons held over 4 million jobs in 1998, with 4.6 million jobs projected by 2008 (+14%). Approximately 1.3 million average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Wholesale and retail buyers working in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$16.86 in 1998, retail salespersons earned \$9.42, on the average, and first-line supervisors and managers of sales personnel averaged \$17.13 per hour.

State: The average wage for wholesale and retail buyers in Kansas was \$15.46 per hour in 1998; half of those working in this field earned less than \$14.31 per hour, and half

earned more. Retail salespersons earned \$8.16 per hour on the average, half earned less than \$6.82 per hour and half earned more.

National: Median hourly earnings of purchasing managers was \$20.11 in 1998; the lowest paid 10% averaged less than \$10.72, and the highest paid 10% averaged more than \$41.70 per hour. Median hourly wages of supervisors and managers of sales workers in retail trade, including commission, were \$14.22 in 1998. The top 10% earned more than \$34.57 and the bottom 10% earned less than \$8.03 per hour.

JCCC Career Program Completers: An average hourly wage of \$9.50 was reported by 1998-99 JCCC fashion merchandising program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to fashion merchandising. An average hourly wage of \$10.98 was reported by 1993-94 fashion merchandising program completers responding to the 1998 long-term follow-up study who were employed full-time in a related job. Salary information for the 2000 long-term follow-up study was not available because the one respondent was not employed full-time in a related job.

JCCC Placement Information

All of the 1998-99 fashion merchandising program completers responding to the January 2000 short-term follow-up study were working in a job related to fashion merchandising, and the remainder were pursuing additional education.

Over 83% of the 1993-94 fashion merchandising program completers contacted in 1998 were employed in a job related to fashion merchandising, and the rest were out of the labor force altogether. None of the completers of the fashion merchandising program responding to the 2000 long-term follow-up study were employed in a related job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

FIRE SCIENCE

Employment of firefighters is expected to increase more slowly than the average for all occupations through 2008 as fire departments continue to compete with other public service providers for funding. Most job growth will occur as volunteer fire fighting positions are converted to paid positions. Prospective firefighters are expected to face keen competition for available job openings. Turnover of firefighter jobs is unusually low; thus, most openings are expected to result from the need to replace those who retire, stop working for other reasons, or transfer to other occupations.

Employment Information

Greater Kansas City Area: Firefighters held an estimated 1,460 jobs in the Greater Kansas City area in 1998, fire inspectors held 30 jobs and fire fighting and prevention supervisors held 460 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Firefighters held an estimated 3,750 jobs in Kansas in 1998, fire inspectors held approximately 70 jobs, and fire fighting and prevention supervisors held 660 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 314,000 workers were employed in firefighting occupations in 1998, with 334,000 jobs projected by 2008 (+6%). Approximately 20,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Individuals employed in firefighting occupations in the Greater Kansas City area in August 1998 earned an average annual salary of \$30,035. The lowest paid 10% earned less than \$21,965 and the highest paid earned more than \$38,084 per year. Firefighters in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary of \$29,474 in 1998, fire inspectors averaged \$38,834 and fire fighting and prevention supervisors earned \$45,282, on the average.

State: Firefighters in Kansas earned an average annual salary of \$21,590 in 1998, fire inspectors averaged \$34,486, and fire fighting and prevention supervisors earned \$36,067 per year on the average in 1998.

National: Median annual earnings of firefighters were \$31,170 in 1998. The lowest paid 10% earned less than \$14,310 and the highest 10% earned more than \$50,930. Firefighters often earn overtime for working extra shifts to maintain minimum staffing levels or for special emergencies. Firefighting and prevention supervisors enjoyed a

median annual salary of \$44,830 in 1998, and supervisors employed in local government, except education and hospitals, earned about \$45,200.

JCCC Career Program Completers: An average annual salary of \$26,000 was reported by 1998-99 JCCC fire science program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to fire science.

An average annual salary of \$37,232 was reported by 1995-96 fire science program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000.

JCCC Placement Information

Two out of three respondents to the short-term follow-up study of 1998-99 career program completers, and the remainder were pursuing additional education.

Nearly 91% of the long-term completers of the fire science program who responded to the 2000 study were employed in a job related to fire science.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

GROUNDS & TURF MANAGEMENT

Employment of landscaping, groundskeeping, nursery, greenhouse, and lawn service workers is expected to grow about as fast as the average for all occupations through the year 2008. Expected growth in the construction of commercial and industrial buildings, shopping malls, homes, highways, and recreational facilities should contribute to the demand for these workers. Most states require certification for workers who apply pesticides. Certification requirements vary, but usually include passing a test on the proper and safe use and disposal of insecticides, herbicides, and fungicides. Some states require landscape contractors to be licensed.

The Associated Landscape Contractors of America (ALCA) offers the designations of Certified Landscape Professional or Certified Landscape Technician to those who meet established education and experience standards and pass an ALCA examination. The hands-on test for technicians covers areas such as maintenance equipment operation and the installation of plants by reading a plan. A written safety test is also administered.

Employment Information

Greater Kansas City Area: In the Greater Kansas City area landscapers and groundskeepers held an estimated 5,120 jobs in 1998, lawn service managers held approximately 280 jobs, and nursery and greenhouse managers held 20 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Landscapers and groundskeepers held an estimated 6,030 jobs in Kansas in 1998, lawn service managers held approximately 90 jobs, and nursery and greenhouse managers held 30 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Individuals in landscaping, groundskeeping, nursery, greenhouse and lawn service occupations held 1,285,000 jobs nationwide in 1998, with 1.5 million jobs projected by 2008 (+20%). Approximately 310,000 average annual openings, including replacements, are anticipated. Lawn service managers alone held 86,000 jobs in 1998, with 104,000 jobs projected by 2008 (+20%). Approximately 10,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Gardeners and groundskeepers working in the Greater Kansas City area earned an average hourly wage of \$10.39 in August 1998. The lowest paid 10% earned less than \$6.23, and the highest 10% earned more than \$12.65 per hour. Gardeners and groundskeepers employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$9.59 in 1998, lawn and

service managers earned \$14.87, and nursery and greenhouse managers earned \$12.15 per hour, on the average.

State: The average hourly wage for landscapers and groundskeepers in Kansas was \$8.50 in 1998; lawn service managers averaged \$14.21, and nursery and greenhouse managers earned \$11.87 per hour, on the average.

National: Earnings vary widely depending on the particular landscaping position and experience, ranging from the minimum wage in some beginning labor positions to more than \$20.00 per hour in some manager jobs. Median hourly earnings in 1998 were \$12.22 for lawn service managers, \$12.19 for nursery and greenhouse managers, \$10.61 for pruners, \$10.41 for sprayers and applicators, and \$8.24 for landscaping and groundskeeping laborers.

Institutional grounds managers had median annual earnings of about \$38,900, lawn-care operators \$32,500, landscape contractors \$37,300, and golf course superintendents \$38,600 in 1996 according to a salary survey conducted by *Grounds Maintenance Magazine*.

JCCC Salary and Placement Information

Grounds and turf management is a cooperative program offered through Longview Community College and has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

Note. Because the grounds and turf program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

HEALTH AIDE OCCUPATIONS

A large number of job openings are expected for home health and personal care aides due to substantial growth and very high turnover in this career field. Home health and personal care aides is expected to be one of the fastest growing occupations through the year 2008. Persons who are interested in this work and suited for it should have excellent job opportunities, particularly those with experience or training as home health, personal care, or nursing aides.

Employment Information

Greater Kansas City Area: Nursing aides, orderlies and attendants held 8,500 jobs in the Greater Kansas City area in 1998, and home health aides held 1,690 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Nursing aides, orderlies, and attendants held an estimated 15,130 jobs in Kansas in 1998, and home health aides held approximately 4,300 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Nursing aides, orderlies, and attendants held 1,367,000 jobs in 1998, with 1,692,000 jobs projected by 2008 (+24%). Approximately 350,000 average annual openings, including replacements, are anticipated. Personal care and home health aides held 746,000 jobs in 1998, with 1,179,000 jobs projected by 2008 (+58%). Approximately 250,000 average annual openings are anticipated, including replacements.

Salary Information

Greater Kansas City Area: Nursing aides, orderlies and attendants earned an average hourly wage of \$8.45 in the Greater Kansas City area in August 1998, and home health aides averaged \$8.98 per hour. The highest paid 10% earned more than \$10.10 and \$11.25, respectively.

State: Nursing aides, orderlies and attendants in Kansas earned an average hourly wage of \$7.62 in 1998, and home health aides averaged \$7.80 per hour.

National: Median hourly earnings of home health and personal care aides were \$7.58 in 1998. The lowest 10% earned less than \$5.73 and the highest 10% earned more than \$10.51 per house. Most employers give slight pay increases with experience and added responsibility.

JCCC Salary and Placement Information

Seven out of ten respondents to the January 2000 short-term follow-up study of health occupations certificate recipients who completed their program in 1998-99 were employed in a related job; 20% were working in an unrelated job, and 10% were out of the labor force. An average hourly wage of \$9.73 was reported by respondents who were employed full-time in a related job. Male respondents averaged \$7.00 per hour, compared to \$10.41 for females.

Salary and placement information resulting from long-term follow-up studies is not yet available for completers of these certificate programs.

HEALTH INFORMATION TECHNOLOGY

Employment of health information technicians is expected to grow much faster than the average for all occupations through 2008 due to rapid growth in the number of medical tests, treatments, and procedures which will be increasingly scrutinized by third-party payers, courts, and consumers. Hospitals will continue to employ a large percentage of health information technicians, but growth will not be as fast as in other areas. Increasing demand for detailed records in offices and clinics of physicians should result in fast employment growth, especially in large group practices. Rapid growth is also expected in nursing homes, and home health agencies.

Most employers prefer to hire Accredited Record Technicians (ART). Accreditation is obtained by passing a written examination offered by the American Medical Record Association. To take the examination, a person must be a graduate of a 2-year accredited associate's degree program.

Employment Information

Greater Kansas City Area: Medical record technicians were employed in an estimated 770 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Medical record technicians held an estimated 1,320 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Medical record technicians held 92,000 jobs in 1998, with 133,000 jobs projected by 2008 (+44%). Approximately 11,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Medical record technicians working in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$10.75 in 1998. Half earned less than \$10.04 per hour, and half earned more.

State: The average hourly wage for medical record technicians in Kansas was \$10.33 in 1998. Half earned less than \$9.56 per hour, and half earned more.

National: Median hourly wages for health information technicians were \$9.90 in 1998. The lowest 10% earned less than \$6.80 and the highest 10% earned more than \$15.18 per hour. According to a 1997 survey by the American Health Information Management Association, the median hourly wage for accredited health information technicians was

\$14.66. The average annual salary for health information technicians employed by the federal government was \$13.22 in early 1999.

JCCC Salary and Placement Information

JCCC Career Program Completers: An hourly wage of \$11.00 was reported by the one health information technology program completer responding to the short-term follow-up study of 1996-97 career program completers conducted in January of 1998 who was employed full-time in a job related to health information technology.

An average hourly wage of \$13.66 was reported by respondents to the long-term follow-up study of 1993-94 career program completers conducted in 1998 who were working full-time in a job related to health information technology.

The one respondent to the 1998 short-term follow-up study of 1996-97 career program completers from the health information technology program was employed in a related job. Three of the four respondents to the 1998 long-term follow-up study of the 1993-94 career program completers were working in a job related to health information technology, and the other respondent was employed in an unrelated job.

None of the completers from this program responded to more recent follow-up studies.

Note. Because the health information technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete. Salary and placement information is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

HOSPITALITY MANAGEMENT

Employment of restaurant and food service managers is expected to increase about as fast as the average for all occupations through the year 2008. Opportunities are expected to be best for those with an associate's or bachelor's degree in restaurant and institutional food service management. Projected employment growth varies by industry. Eating and drinking places will provide the most new jobs as the population increases along with personal incomes and leisure time. In addition, manager jobs will increase as schools, hospitals, and other businesses contract out more of their food services to institutional food service companies.

Employment Information

Greater Kansas City Area: Food service and lodging managers held an estimated 2,370 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Food service and lodging managers held an estimated 3,840 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: About 595,000 workers were employed as food service and lodging managers in 1998, with 691,000 jobs projected by 2008 (+16%). Approximately 139,000 average annual openings, including replacements, are anticipated.

Salary Information

JCCC Career Program Completers: An average annual salary of \$24,107 was reported by 1998-99 hospitality management program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to hospitality management.

An average annual wage of \$34,299 was reported by 1995-96 hospitality management program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000. Male respondents reported an average annual salary of \$35,942 and females averaged \$32,656 per year.

Greater Kansas City Area: Food servicing and lodging managers earned an average annual salary of \$52,458 in August 1998. The lowest paid 10% earned less than \$27,498 and the highest paid earned more than \$80,000 per year. Food service and lodging managers employed in Johnson, Leavenworth, Miami and Wyandotte Counties in 1998 earned an average salary of \$32,198.

State: The average salary reported for food service and lodging managers in Kansas was \$27,893 in 1998. Half earned less than \$25,189 per year, and half earned more.

National: The median earnings of food service and lodging managers were \$26,700 in 1998. The lowest paid 10% earned \$14,430 or less, while the highest paid 10% earned \$45,520 or more per year. Managers may earn bonuses up to 25% of their basic salary in some hotels and may also be furnished with lodging, meals, parking, laundry, and other services. In addition to typical benefits, some hotels offer profit-sharing plans and educational assistance to their employees.

JCCC Placement Information

Approximately 91% of the 1998-99 hospitality management program completers responding to the January 2000 short-term follow-up study, and 73% of the 1995-96 completers contacted for the long-term follow-up study in 2000 were employed in a job related to hospitality management. The rest were either employed in unrelated jobs or out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers. Caution should also be exercised when interpreting local, state and national salary data as these data do not differentiate between salaries of postsecondary hospitality management career program completers and wages earned by less qualified food service and lodging managers.

HOTEL MANAGEMENT

Employment of hotel managers is expected to grow more slowly than the average for all occupations through 2008. Increasing business travel and domestic and foreign tourism will drive employment growth of hotel managers and assistants, but many chains are increasing the number of economy-class rooms to accommodate bargain-conscious guests. Economy hotels offer clean, comfortable rooms and front desk services without costly extras. Because there are not as many departments in these hotels, fewer managers will be needed. Additional demand for managers is expected in suite hotels however. Some guests, especially business customers, are willing to pay higher prices for rooms with kitchens and suites that provide space needed to conduct meetings.

Employment Information

Greater Kansas City Area: Food service and lodging managers held an estimated 2,370 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available. Data for hotel management as a separate career field was unavailable.

State: Food service and lodging managers held an estimated 3,840 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available. Data for hotel management as a separate career field was unavailable.

National: About 595,000 workers were employed as food service and lodging managers in 1998, with 691,000 jobs projected by 2008 (+16%). Approximately 139,000 average annual openings, including replacements, are anticipated. Data for hotel management as a separate career field was unavailable.

Salary Information

JCCC Career Program Completers: An average annual salary of \$29,120 was reported by 1998-99 hotel management program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to hotel management.

An average annual wage of \$27,186 was reported by 1994-95 hospitality management program completers working full-time in a related job who responded to the long-term follow-up study conducted in 1999. Male respondents reported an average annual salary of \$31,990 and females averaged \$24,794 per year. Data for hotel management as a separate career field was unavailable.

Greater Kansas City Area: Food servicing and lodging managers earned an average annual salary of \$52,458 in August 1998. The lowest paid 10% earned less than \$27,498 and the highest paid earned more than \$80,000 per year. Food service and lodging

managers employed in Johnson, Leavenworth, Miami and Wyandotte Counties in 1998 earned an average salary of \$32,198. Data for hotel management as a separate career field was unavailable.

State: The average salary reported for food service and lodging managers in Kansas was \$27,893 in 1998. Half earned less than \$25,189 per year, and half earned more. Data for hotel management as a separate career field was unavailable.

National: Median annual earnings of hotel managers and assistants were \$26,700 in 1998. The lowest 10% earned less than \$14,430 and the top 10% earned more than \$45,520 per year. Salaries of hotel managers and assistants vary greatly according to their responsibilities and the segment of the hotel industry in which they are employed. Managers may earn bonuses of up to 25% of their basic salary in some hotels and may also be furnished with lodging, meals, parking, laundry, and other services.

JCCC Placement Information

All of the 1998-99 hotel management program completers responding to the January 2000 short-term follow-up study were employed in a job related to hotel management.

Hotel management has not been offered at Johnson County Community College for a sufficient length of time to provide data from long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers. Caution should also be exercised when interpreting local, state and national salary data as these data do not differentiate between salaries of postsecondary hotel management career program completers and wages earned by less qualified managers.

HVAC TECHNOLOGY: HEATING, VENTILATION AND AIR CONDITIONING

Employment of heating, air conditioning, and refrigeration technicians is expected to increase about as fast as the average for all occupations through the year 2008. As the population and economy grow, so does the demand for new residential, commercial, and industrial climate-control systems. Furthermore, an emphasis on better energy management should lead to the replacement of older systems in existing homes and buildings. Demand for maintenance and service work should also increase as businesses and homeowners strive to keep systems operating at peak efficiency. In addition, thousands of openings will result from the need to replace workers who transfer to other occupations or leave the labor force.

Employment Information

Greater Kansas City Area: An estimated 1,350 jobs were held by heating, air conditioning, and refrigeration mechanics and installers in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Heating, air conditioning and refrigeration mechanics held an estimated 2,590 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: About 286,000 heating, air conditioning, and refrigeration mechanics and installers were employed nationwide in 1998, with 334,000 jobs are projected by 2008 (+17%). Approximately 30,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Heating, air conditioning, and refrigeration technicians employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$16.25 in 1998. Half earned less than \$14.81 per hour, and half earned more.

State: The average hourly wage for heating, air conditioning, and refrigeration mechanics and installers in Kansas was \$14.27 in 1998. Half earned less than \$13.78 per hour, and half earned more.

National: The median hourly wage of air-conditioning, heating, and refrigeration mechanics and installers was \$14.02 in 1998. The lowest 10% earned less than \$8.78 and the top 10% earned more than \$22.29 per hour. Apprentices usually begin at about 50% of the wage rate paid to experienced workers.

JCCC Career Program Completers: An average hourly wage of \$14.99 was reported by 1998-99 HVAC technology program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to HVAC technology.

Respondents to the summer 2000 long-term follow-up study of 1995-96 career program completers employed full-time in a job related to HVAC technology reported an average hourly wage of \$23.03.

JCCC Placement Information

Nine out of ten of the 1998-99 HVAC technology program completers responding to the January 2000 short-term follow-up study were employed in a job related to HVAC technology and the rest were working in an unrelated job.

Over 64% of the 1995-96 HVAC technology program completers responding to the 2000 long-term study were working in a job related to HVAC; the other respondents were either employed in unrelated jobs or out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

INFORMATION TECHNOLOGY

Employment of computer and information systems managers is expected to grow rapidly due to the increasing use of information technologies. The fast-paced expansion of the computer and data processing services industry will contribute strongly to the increased demand for workers in this field. In addition, employment growth is expected across a variety of industries reflecting the widespread importance of information technology. In order to remain competitive, firms will continue to install sophisticated computer networks, set up Internet and intranet sites, and engage in electronic commerce. The Kansas City Action Committee on Technology Worker Shortage estimates that in the Kansas City area alone in March 2000, more than 3,500 technology positions were unfilled.

Employment Information

Greater Kansas City Area: Systems analysts, database administrators, and computer scientists held an estimated 5,740 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Systems analysts, database administrators, and computer scientists held an estimated 4,890 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Computer systems analysts, engineers, and scientists held 1,530,000 jobs nationwide in 1998, with 3,052,000 jobs projected by 2008 (+99%). About 395,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Computer systems analysts and scientists earned an average annual salary of \$55,744 in the Greater Kansas City area August 1998. The lowest paid 10% earned less than \$39,458 and the highest paid 10% earned more than \$71,552 per year. In Johnson, Leavenworth, Miami and Wyandotte Counties systems analysts earned an average annual salary of \$52,062 in 1998, database administrators averaged \$49,462 and computer scientists averaged \$45,157 per year.

State: Systems analysts earned an average annual salary of \$51,542 in Kansas in 1998; database administrators earned \$43,555 and computer scientists averaged \$46,488 per year.

National: Median annual earnings of computer support specialists were \$37,120 in 1998. The lowest 10% earned less than \$22,930 and the highest 10% earned more than \$73,790. The median annual earnings for database administrators were \$47,870 in 1998, and median annual earnings of computer systems analysts were \$52,180.

According to HGI Consulting, average starting salaries in 1999 for information technology managers ranged from \$50,500 to well over \$100,000, depending on the area of specialization.

JCCC Career Program Completers: An average annual salary of \$37,669 was reported by 1998-99 information technology program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to information technology. Males earned an average of \$39,270 and females reported an average salary of \$32,906 per year.

JCCC Placement Information

Over 81% of information technology completers who responded to the 2000 short-term follow-up study of 1998-99 career program completers were employed in a related job. Approximately 11% were working in an unrelated job, 2% were unemployed, and the rest were pursuing additional education.

The information technology program has not been offered at Johnson County Community College for a sufficient length of time to provide salary and placement information from respondents to the long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

INTERIOR DESIGN

Overall, the employment of designers is expected to grow faster than the average for all occupations through the year 2008. Rising demand for professional design of private homes, offices, restaurants and other retail establishments, and institutions that care for the rapidly growing elderly population should spur employment growth of interior designers. Many talented individuals are attracted to careers as designers, however, so despite projected faster-than-average employment growth, designers are expected to face keen competition for available positions.

However, interior design program completers will always find ample employment opportunities as retail salespersons and have better opportunities for advancement than nonprogram completers. Overall, although employment of retail sales worker supervisors and managers is expected to grow more slowly than the average for all occupations through the year 2008, employment of retail sales workers is expected to increase about as fast as the average due to anticipated growth in retail sales created by a growing population.

Employment Information

Greater Kansas City Area: Interior designers held an estimated 570 jobs in the Greater Kansas City area in 1998. Wholesale and retail buyers held an estimated 610 jobs, first-line supervisors and managers of sales personnel held 17,430 jobs, and retail salespersons held approximately 28,550 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Interior designers held an estimated 320 jobs in Kansas in 1998, wholesale and retail buyers held approximately 950 jobs, and retail sales workers held approximately 41,070 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 53,000 workers were employed as interior designers in 1998, with 68,000 jobs projected by 2008 (+27%). Nearly 9,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Designers employed in the Greater Kansas City area earned an average hourly wage of \$18.96 in August 1998, and sales supervisors earned \$15.02 per hour on the average. Retail salespersons employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$9.42; wholesale and retail buyers earned \$16.86, and first line sales supervisors of sales and related workers earned \$17.13 per hour, on the average.

State: Interior designers employed in Kansas earned an average hourly wage of \$14.96 in 1998. Wholesale and retail buyers earned \$15.46, retail salespersons earned \$8.16, and first-line supervisors of sales related workers earned \$13.87 per hour, on the average.

National: The median hourly wage for interior designers was \$15.27 in 1998. The lowest 10% earned less than \$8.83 and the highest 10% earned more than \$31.64 per hour.

JCCC Career Program Completers: An average hourly wage of \$11.18 was reported by 1998-99 JCCC interior design program completers responding to the January 2000 short-term follow-up study who were working full-time in a related job.

Respondents to the summer 2000 long-term follow-up study of 1995-96 career program completers who were working full-time in a job related to interior design reported an average hourly wage of \$15.50.

JCCC Placement Information

Nearly 86% of the 1998-99 interior design program completers responding to the January 2000 short-term follow-up study were working in a job related to interior design, 7% were unemployed and 7% were not in the labor force at the time the study was conducted.

Over 83% of interior design completers who responded to the 2000 long-term follow-up study of 1995-96 completers were employed in a job related to interior design, and the remainder were employed in an unrelated job.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

LICENSED PRACTICAL NURSE

Employment of LPN's is expected to grow as fast as the average for all occupations through 2008 in response to the long-term care needs of a rapidly growing population of very old people and to the general growth of health care. However, LPN's seeking positions in hospitals may face competition as the number of hospital jobs for LPN's declines.

Employment in nursing homes is expected to grow faster than the average. Nursing homes will offer the most new jobs for LPNs as the number of aged and disabled persons in need of long-term care rises, and to care for the increasing number of patients who have been released from the hospital and have not yet recovered enough to return home. Much faster than average growth is also expected in home health care services. This is in response to a growing number of older persons with functional disabilities, consumer preferences for care in the home, and technological advances which make it possible to bring increasingly complex treatments into the home.

Employment Information

Greater Kansas City Area: Licensed practical nurses held approximately 4,110 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: An estimated 7,390 licensed practical nurses were employed in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Licensed practical and licensed vocational nurses held 692,000 jobs in 1998, with 828,000 jobs projected by 2008 (+20%). Approximately 43,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Licensed practical nurses worked in the Greater Kansas City area earned an average hourly wage of \$12.75 in August 1998. The lowest paid 10% earned less than \$9.92, and the highest paid earned more than \$15.03 per hour.

State: Licensed practical nurses earned \$11.86 on the average in Kansas in 1998. Half earned less than \$11.68 per hour, and half earned more.

National: The median hourly wage was \$12.95 for LPNs in 1998. The lowest 10% earned less than \$9.72, and the highest 10% earned more than \$18.05 per hour.

JCCC Career Program Completers: An average hourly wage of \$11.64 was reported by 1998-99 JCCC licensed practical nurse program completers responding to the January 2000 short-term follow-up study who were working full-time in a related job.

LPN program completers responding to the long-term follow-up study of 1995-96 graduates conducted in summer of 2000 reported an average hourly wage of \$15.80.

JCCC Placement Information

Two out of three of the LPN program completers responding to the 2000 short-term follow-up study of 1998-99 career program completers were employed in a related job; approximately 5% were employed in an unrelated job, 14% were pursuing additional education, 5% were unemployed, and 10% were out of the labor force altogether.

Nine out of ten LPN respondents to the 2000 long-term follow-up study were working in a related job, and the rest were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

MARKETING & MANAGEMENT

Employment of marketing, advertising, and public relations managers is expected to increase faster than the average for all occupations through 2008. Marketing, advertising, and public relations manager jobs are highly coveted and will be sought by other managers or highly experienced professional and technical personnel, resulting in substantial job competition. Increasingly intense domestic and global competition in products and services offered to consumers should require greater marketing, promotional, and public relations efforts by managers. Management and public relations firms may experience particularly rapid growth as businesses increasingly hire contractors for these services rather than support additional full-time staff.

Employment Information

Greater Kansas City Area: Marketing, advertising, and public relations managers held an estimated 5,230 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Marketing, advertising, and public relations managers held an estimated 5,630 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Advertising, marketing, promotions, public relations, and sales managers held 485,000 jobs in 1998, with 597,000 jobs projected by the year 2008 (+23%). Approximately 89,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Individuals employed in advertising and related sales occupations earned an average annual salary of \$37,960 in August 1998. The lowest paid 10% earned less than \$28,891, and the highest paid 10% earned more than \$46,218 per year. Marketing, advertising, and public relations managers employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned \$62,837 per year, on the average, in 1998.

State: The average annual salary for marketing, advertising, and public relations managers in Kansas was \$56,950 in 1998. Half of those employed in this occupation earned less than \$49,733 per year, and half earned more.

National: Median annual earnings of advertising, marketing, promotions, public relations, and sales managers in 1998 were \$57,300. The lowest 10% earned less than \$28,190 and the highest 10% earned more than \$116,160 per year. According to a National Association of Colleges and Employers survey, starting salaries for marketing majors graduating in 1999 averaged about \$31,900.

JCCC Program Completers: An average annual salary of \$24,856 was reported by 1998-99 marketing and management program completers responding to the January 2000 short-term follow-up study who were working full-time in a related job. The average salary reported by business administration program completers responding to this short-term follow-up study was \$32,240.

An average annual salary of \$45,760 was reported by the one 1995-96 marketing and management program completer working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000. Business administration program completers responding to the 2000 long-term follow-up study who were working full-time in a related job reported earning an average annual salary of \$48,797. On the average, males reported earnings of \$51,646 compared to \$45,968 for females responding to the survey.

JCCC Placement Information

Fully 80% of respondents to the January 2000 short-term follow-up of both 1998-99 marketing and management program completers and business administration program completers were employed in a related job.

All of the respondents to the 1999 follow-up study of 1994-95 marketing and management program completers and 92% of the business administration program completers responding to the survey were employed in a related job related.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

METAL FABRICATION

Employment of welders, cutters, and welding machine operators is expected to grow more slowly than the average for all occupations through 2008, reflecting rising automation and productivity in many of the industries that employ these workers. Despite projected slower-than-average employment growth, job prospects should be excellent for welders with the right skills, as many employers report difficulties in finding qualified applicants. In addition, openings will arise as workers retire or leave the occupation for other reasons.

Employment Information

Greater Kansas City Area: Welders and cutters held an estimated 1,870 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Welders and cutters held an estimated 5,170 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Welders and cutters held 368,000 jobs in 1998, with 398,000 jobs projected by 2008 (+8%). Approximately 38,000 average annual openings are projected, mostly due to the need for replacements.

Salary Information

Greater Kansas City Area: The average hourly wage for welders and cutters in Johnson, Leavenworth, Miami and Wyandotte Counties was \$14.60 in 1998. Half earned less than \$12.71 per hour, and half earned more.

State: The average hourly wage of welders and cutters in Kansas was \$12.40 in 1998. Half earned less than \$11.49 per hour, and half earned more.

National: Median hourly wages for welders and cutters were \$12.41 in 1998. The lowest 10% earned less than \$8.43, and the highest 10% earned more than \$19.06 per hour. Median hourly wages for welding machine operators were \$12.02 in 1998. Approximately one in four welders belongs to a union.

JCCC Career Program Completers: An average hourly wage of \$14.15 was reported by 1998-99 JCCC metal fabrication program completers responding to the January 2000 short-term follow-up study who were working full-time in a related job.

An average hourly wage of \$14.00 was reported by the one 1994-95 completer of the metal fabrication program who responded to the long-term follow-up study conducted in 1999 who was employed full-time in a related job. More recent data were unavailable.

JCCC Placement Information

All of the metal fabrication program completers responding to recent follow-up studies were employed in jobs related to metal fabrication.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

NURSING

Employment of registered nurses is expected to grow faster than the average for all occupations through 2008. There will always be a need for traditional hospital nurses, but a large number of new nurses will be employed in home health, long-term, and ambulatory care. Faster than average growth in this occupation will be driven by technological advances in patient care, which permit a greater number of medical problems to be treated, and an increasing emphasis on primary care. Employment in hospitals, the largest sector, is expected to grow more slowly than in other health-care sectors. Most rapid growth is expected in hospitals' outpatient facilities, such as same-day surgery, rehabilitation, and chemotherapy. In evolving integrated health care networks, nurses may rotate among employment settings.

Employment Information

Greater Kansas City Area: Registered nurses held an estimated 16,370 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Registered nurses held an estimated 22,740 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Registered nurses held 2,079,000 jobs in 1998, with 2,530,000 jobs projected by 2008 (+22%). Approximately 195,000 average annual openings, including replacements, are anticipated. .

Salary Information

Greater Kansas City Area: The average annual salary for registered nurses working in the Greater Kansas City area was \$40,414 in August 1998. Registered nurses employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned \$42,640 on the average in 1998. Half earned less than \$41,330 per year, and half earned more.

State: The average annual salary for registered nurses in Kansas was \$37,419 in 1998. Half earned less than \$36,130 per year, and half earned more.

National: Median annual earnings of registered nurses were \$40,690 in 1998. The lowest 10% earned less than \$29,480 and the highest 10% earned more than \$69,300 per year. Many employers offer flexible work schedules, child care, educational benefits, and bonuses.

JCCC Career Program Completers: An average annual salary of \$36,379 was reported by 1998-99 nursing program completers responding to the January 2000 short-term follow-up study who were working full-time in a job related to nursing.

An average annual salary of \$38,854 was reported by 1995-96 nursing program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000.

JCCC Placement Information

Nearly 95% of 1998-99 nursing program completers responding to the 2000 short-term follow-up studies were working in a job related to nursing, and the rest were out of the labor market at the time the survey was conducted.

Nearly 93% of the Class of 1995-96 nursing program completers responding to the long-term follow-up study conducted in 2000 were employed in a related job, and the rest were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

OCCUPATIONAL THERAPY ASSISTANT

Employment of occupational therapy assistants and aides is expected to grow much faster than the average for all occupations through 2008. Employment growth would be even faster except for federal legislation imposing limits on reimbursement for therapy services. The growth in this career field will result from an aging population, including the baby-boom cohort, which will probably need substantial occupational therapy services. Demand will also result from advances in medicine that allow more people with critical problems to survive and then need rehabilitative therapy. By having assistants and aides work more closely with clients under the guidance of a therapist, the cost of therapy should be more modest than otherwise.

The occupational therapy assistant program is offered in cooperation with Penn Valley Community College. The support courses are provided at JCCC, and the clinical courses are conducted at Penn Valley and affiliated clinical agencies. All program completers are required to pass a national certification examination.

Employment Information

Greater Kansas City Area: Occupational therapy assistants held 120 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Occupational therapy assistants held an estimated 140 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 19,000 occupational therapy assistants and aides held jobs nationwide in 1998, with 26,000 jobs projected by 2008 (+40%). Approximately 3,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Occupational therapy assistants employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$15.54 in 1998. Half earned more than \$16.33 per hour, and half earned less.

State: The average hourly wage for occupational therapy assistants and aides employed in Kansas was \$14.04 in 1998. Half earned more than \$14.38 per hour, and half earned less.

National: Median hourly wages of occupational therapy assistants and aides were \$13.79 in 1998. The lowest 10% earned less than \$7.21 and the highest 10% earned more than \$22.00 per hour.

JCCC Salary and Placement Information

Occupational therapy assistant program completers responding to the short-term follow-up study of 1998-99 career program completers conducted in January 2000 who were employed in a related job reported earning an average hourly wage of \$13.25. Nearly 79% were employed as occupational therapy assistants, 11% were working in an unrelated job, and 10% were unemployed at the time the study was conducted.

Data from recent long-term follow-up studies were unavailable for this career program.

Note. Salary and placement information for career program completers is based on data supplied by respondents to follow-up studies and thus may not necessarily be representative of all career program completers.

Because the occupational therapy assistant program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

PARALEGAL

Paralegals are projected to rank among the fastest growing occupations in the economy through 2008. However, stiff competition for jobs should continue as the number of graduates of paralegal training programs and others seeking to enter the profession outpaces job growth. Private law firms will continue to be the largest employers of paralegals, but a growing array of other organizations, such as corporate legal departments, insurance companies, real estate and title insurance firms, and banks will also continue to hire paralegals. Job opportunities for paralegals will expand in the public sector as well. Community legal service programs which provide assistance to the poor, aged, minorities, and middle-income families, will employ more paralegals to minimize expenses and serve the most people. Federal, state, and local government agencies, consumer organizations, and the courts should also continue to hire paralegals in increasing numbers.

Graduation from an American Bar Association (ABA) approved program can enhance one's employment opportunities. JCCC's paralegal program is one of only 30% of the paralegal programs offered in the United States which have been approved by the ABA.

Employment Information

Greater Kansas City Area: Paralegals held an estimated 930 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Paralegals held an estimated 740 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Paralegals and legal assistants held 136,000 jobs in 1998, with 220,000 jobs projected by 2008 (+62%). Approximately 34,000 average annual openings, including replacements, are anticipated. Paralegals are listed among the fastest growing occupations nationwide.

Salary Information

Greater Kansas City Area: Paralegals employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary of \$33,675 in 1998. Half earned less than \$32,178 per year, and half earned more.

State: Paralegal personnel in Kansas earned an average annual salary of \$29,266 in 1998. Half earned less than \$26,770 per year, and half earned more.

National: In 1998, full-time, wage and salary paralegals earned a median annual salary of \$32,760. The top 10% earned more than \$50,290, while the bottom 10% earned less than \$21,770. According to the National Association of Legal Assistants, paralegals

earned an average salary of \$34,000 in 1997. In addition to a salary, many paralegals received a bonus which averaged about \$2,100. The starting salary of paralegals with one year or less of experience averaged \$30,700 in 1997 according to the National Federation of Paralegal Associations.

JCCC Career Program Completers: An average annual salary of \$29,848 was reported by 1998-99 paralegal program completers responding to the January 2000 short-term follow-up study who were employed full-time in a related job.

An average annual salary of \$34,778 was reported by 1995-96 paralegal program completers working full-time in a related job who responded to the long-term follow-up study conducted in summer of 2000.

JCCC Placement Information

Over 83% of the paralegal program completers responding to the January 2000 short-term follow-up study were working in a job related to their paralegal career program; 7% were employed in an unrelated job, 3% were pursuing additional education, and 7% were out of the labor force altogether at the time the survey was conducted.

Approximately 65% of respondents to the 2000 follow-up study of 1995-96 paralegal program completers were employed in a related job; 23% were working in an unrelated job and the remainder were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

PHYSICAL THERAPY ASSISTANT

Employment of physical therapy assistants and aides is expected to grow much faster than the average through the year 2008. However, federal legislation imposing limits on reimbursement for therapy services may continue to adversely affect the job market for physical therapist assistants and aides in the near term. Because of the effects of these provisions, the majority of expected employment growth for physical therapist assistants and aides is expected to occur in the second half of the projection period.

The physical therapy assistant program is offered in cooperation with Penn Valley Community College. The support courses are provided at JCCC, and the clinical courses are conducted at Penn Valley and affiliated clinical agencies. All program completers are required to pass a national certification examination.

Employment Information

Greater Kansas City Area: Physical and correctional therapy assistants and aides held an estimated 550 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Physical and corrective therapy assistants and aides held an estimated 1,120 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 82,000 physical therapy assistants and aides held jobs in 1998, with 118,000 job projected by 2008 (+44%). Approximately 14,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Physical and corrective therapy assistants and aides employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$13.08 in 1998. Half earned less than \$12.23 per hour, and half earned more.

State: The average hourly wage earned by physical and corrective therapy assistants and aides in Kansas was \$11.48 in 1998. Half of those working in this career field earned less than \$9.98 per hour, and half earned more.

National: Median hourly wages of physical therapist assistants and aides were \$10.51 in 1998. The lowest 10% earned less than \$6.62 and the highest 10% earned more than \$19.10 per hour.

JCCC Salary and Placement Information

Physical therapy assistant program completers responding to the short-term follow-up study of 1997-98 completers conducted in January 1999 reported an average hourly wage of \$14.94. Male respondents earned \$18.58 on the average, and females earned \$12.75 per hour. All of the respondents were employed in a related job.

None of the physical therapy assistant program completers responded to the 2000 follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

Because the physical therapy assistant program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

RADIOLOGIC TECHNOLOGY

Employment of radiologic technologists is expected to grow as fast as the average for all occupations through 2008 as the population grows and ages, increasing the demand for diagnostic imaging and therapeutic technology. Radiologic technologists who are educated and credentialed in more than one type of imaging technology, such as radiography and ultrasonography or nuclear medicine, will have better employment opportunities as employers look for new ways to control costs. In hospitals, multi-skilled employees will be the most sought after as hospitals respond to cost pressures by continuing to merge departments.

Hospitals will remain the principal employer of radiologic technologists. However, employment is expected to grow most rapidly in offices and clinics of physicians, including diagnostic imaging centers. Health facilities such as these are expected to grow very rapidly through 2008 due to the strong shift toward outpatient care encouraged by third-party payers and made possible by technological advances that permit more procedures to be performed outside of the hospital.

Radiologic technology is a cooperative program between JCCC and Penn Valley Community College, with related courses taken at JCCC and lab and clinical courses held at PVCC or at a cooperating health facility.

Employment Information

Greater Kansas City Area: An estimated 1,540 radiologic technologists were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Radiologic technologists held an estimated 1,710 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: About 162,000 radiologic technologists and technicians were employed in 1998, with 194,000 jobs projected by 2008 (+20%). Approximately 11,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Radiologic technicians employed in the Greater Kansas City area earned an average annual salary of \$33,259 in August 1998. The lowest paid 10% earned less than \$27,352, and the highest paid 10% earned more than \$40,373 per year.

State: Radiologic technologists earned an average annual salary of \$30,493 in Kansas in 1998. Half earned less than \$29,702 per year, and half earned more.

National: Median annual earnings of radiologic technologists and technicians were \$32,880 in 1998. The lowest 10% earned less than \$23,650 and the highest 10% earned more than \$47,610 per year.

JCCC Salary and Placement Information

Radiologic technology program completers responding to the short-term follow-up study of 1998-99 graduates conducted in January 2000 were employed full-time in a related job and reported earning an average annual salary of \$30,326.

None of the previous radiologic technology program completers responded to recent long-term follow-up studies.

Note. Because the radiologic technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

RAILROADING OPERATIONS

Employment for a majority of railroad transportation workers is expected to decline through the year 2008, with only the number of jobs for locomotive engineers and subway and streetcar operators expected to grow. A limited number of total job openings is expected, because the attractive pay, tenure, and job security results in relatively few rail transportation workers leaving their jobs. In addition, not all the workers who leave the occupations will be replaced, further reducing job openings. The industry continues to reduce its workforce because of productivity gains, mergers, and divestiture-related cutbacks. Growth in the number of railroad transportation workers is also expected to be adversely affected by innovations such as larger, faster, more fuel-efficient trains and computerized classification yards that make it possible to move freight more economically. However, employment of locomotive and yard engineers should grow as the industry expands to high-speed service in various corridors in the country.

Employment Information

State: Railroad conductors and yardmasters held an estimated 840 jobs in Kansas in 1998; locomotive engineers held 960 jobs and railroad brake, signal, and switch operators held 340 jobs.

National: Approximately 85,000 rail transportation workers were employed nationwide in 1998, with 75,000 jobs projected by 2005 (-11%). However, about 5,000 average annual openings are anticipated due to the need for replacements.

Salary Information

State: Railroad conductors and yardmasters earned an average annual salary of \$55,910 in Kansas in 1998; locomotive engineers averaged \$43,202 and railroad brake, signal, and switch operators earned an average annual salary of \$40,477. Current projections of future employment needs and anticipated annual job openings were not available.

National: Median annual earnings for locomotive engineers were \$39,811 in 1998. The lowest 10% earned less than \$25,418 and the highest 10% earned more than \$74,152. Median earnings of railroad conductors and yardmasters were \$38,500 in 1998. The lowest 10% earned less than \$28,288 and the highest 10% earned more than \$73,362 per year. Median hourly earnings of railroad brake, signal, and switch operators were \$36,546 in 1998. The lowest 10% earned less than \$26,750 and the highest 10% earned more than \$50,253 per year.

JCCC Salary and Employment Information

Completers of the railroad operations program who responded to the short-term follow-up study of 1998-99 conducted in January 2000 who were employed full-time in a related job reported earning an average annual salary of \$47,778. Three out of four of these railroad operations program completers were working in a related job and the other was serving in the military.

This program has not been offered at Johnson County Community College long enough to conduct long-term follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

RESPIRATORY CARE

Employment of respiratory therapists is expected to increase much faster than the average for all occupations through the year 2008 because of substantial growth of the middle-aged and elderly population--a development that will heighten the incidence of cardiopulmonary disease. Although hospitals will continue to employ the vast majority of therapists, a growing number of therapists can expect to work outside of hospitals in home health agencies, respiratory therapy clinics, or nursing homes. Opportunities are expected to be highly favorable for respiratory therapists with cardiopulmonary care skills and experience working with infants.

Employment Information

Greater Kansas City: Respiratory therapists held an estimated 770 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Respiratory therapists held an estimated 760 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: About 86,000 respiratory therapists were employed nationwide in 1998, with 123,000 jobs projected by 2008 (+43%). Approximately 9,000 average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Respiratory therapists employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average annual salary of \$33,675 in 1998.

State: Respiratory therapists working in Kansas in 1998 earned an average annual salary of \$32,926. Half earned more than \$32,573 per year, and half earned less.

National: Median annual earnings for respiratory therapists were \$34,830 in 1998. The lowest 10% earned less than \$25,910 and the highest 10% earned more than \$46,760 per year.

JCCC Career Program Completers: An average annual salary of \$31,491 was reported by respiratory care program completers working full-time in a job related to respiratory care who responded to the January 2000 short-term follow-up study of 1998-99 career program completers. The average annual salary was \$34,050 for males and \$30,202 for females.

An average annual salary of \$34,694 was reported by 1995-96 respiratory care program completers working full-time in a job related to respiratory care who responded to the long-term follow-up study conducted in summer of 2000.

JCCC Placement Information

Nearly 92% of respiratory care program completers responding to the 2000 short-term follow-up study were working in a job related to respiratory care or serving in the military, and the other 8% were employed in an unrelated job.

Nearly 85% of respiratory care program completers responding to the 2000 long-term follow-up study of the class of 1995-96 were employed in a related job. Approximately 8% were unemployed at the time the study was conducted and the remainder were out of the labor force altogether.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

**RETAIL SALES REPRESENTATIVE
SERVICE SALES REPRESENTATIVE
TELESERVICE REPRESENTATIVE**

Although employment of retail sales worker supervisors and managers is expected to grow more slowly than the average for all occupations through the year 2008, employment of retail sales workers is expected to increase about as fast as the average due to anticipated growth in retail sales created by a growing population. As in the past, employment opportunities for retail salespersons are expected to continue to be good because of the many job openings created each year due to the need to replace the large number of workers who transfer to other occupations or leave the labor force. There will continue to be many opportunities for part-time workers as well, and demand will be strong for temporary workers during peak selling periods, such as the Christmas season.

Employment of services sales representatives is expected to grow much faster than the average for all occupations through 2008 in response to growth of the services industries employing them. With improved technology, some companies are cutting back on the expense of travel and on-site presentations and putting more emphasis on in-hour sales via the Internet, direct calling, and teleconferencing. In addition, temporary or contract sales people may be used more frequently for outside sales.

Employment Information

Greater Kansas City Area: Retail salespersons held approximately 28,550 jobs in the Greater Kansas City area in 1998; first-line supervisors and managers of sales and related workers held an estimated 17,430 jobs, and telemarketers, door-to-door sales workers, news and street vendors, and other related workers held approximately 3,090 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Retail sales workers held an estimated 41,070 jobs; and first-line supervisors and managers of sales and related workers held approximately 16,420 jobs in Kansas in 1998. Telemarketers, door-to-door sales workers, news and street vendors, and other related workers held 5,780 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Retail salespersons held over 4 million jobs in 1998, with 4.6 million jobs projected by 2008 (+14%). Approximately 1.3 million average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Retail salespersons in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$9.42 in 1998; first-line

supervisors and managers of sales and related workers averaged \$17.13, and telemarketers, door-to-door sales workers, news and street vendors and other related workers earned an average of \$9.28 per hour in 1998.

State: The average hourly wage for retail salespersons was \$8.16 in 1998. First-line supervisors and managers of sales personnel earned \$13.87, and telemarketers, door-to-door sales workers, news and street vendors in Kansas earned \$8.33, on the average.

National: Starting wage for many retail sales positions is the federal minimum wage, which was \$5.15 per hour in 1999. In some areas where employers have difficulty attracting and retaining workers, wages are higher than the established minimum. Median hourly earnings of retail salespersons, including commission, were \$7.61 in 1998. The lowest 10% earned less than \$5.76, and the highest 10% earned more than \$14.53 per hour. Employers may use incentive programs such as awards, banquets, bonuses, and profit-sharing plans to promote teamwork among the sales staff.

Median hourly earnings of telemarketers and other related workers, including commission, were \$8.22 in 1998. The lowest 10% earned less than \$5.94, and the highest 10% earned more than \$14.56 per hour.

JCCC Placement and Salary Information

These programs have not been offered at JCCC for a sufficient period of time to provide data from follow-up studies.

SALES AND CUSTOMER RELATIONS

Overall, employment of manufacturers' and wholesale sales representatives is expected to grow more slowly than the average for all occupations through the year 2008. Continued growth due to the increasing variety and number of goods to be sold will be tempered by the increased effectiveness and efficiency of sales workers, due in part to the technology which provides accurate and current information to customers during sales presentations.

Manufacturers are expected to continue outsourcing sales duties to manufacturers' agents rather than using in-house or direct selling personnel. Those interested in this occupation should keep in mind that direct selling opportunities in manufacturing are likely to be best for products with strong demand.

Employment of service sales representatives, as a group, is expected to grow much faster than the average for all occupations through 2008 in response to growth of the services industries employing them. However, projected employment growth of services sales representatives varies by industry. For example, continued growth in factory and office automation should lead to much faster than average employment growth for computer and data processing services sales representatives. Employment in personnel supply services will grow as companies continue to outsource and use temporary employees. Growth will be tempered in some industries by the expanded use of various technologies, such as voice and electronic mail, portable phones, and laptop computers that all increase sales workers' productivity--especially while out of the office.

Individuals interested in pursuing a career in sales should be enthusiastic, outgoing, self-confident, disciplined, hard working, and able to communicate effectively. They should be able to inspire customer confidence and work with little or no supervision. Some companies give personality tests to prospective employees because personality attributes are so important in sales work. Earnings usually increase rapidly with experience, and opportunities for advancement are good for those possessing sales ability and leadership skills.

Employment Information

Greater Kansas City Area: Approximately 115,060 workers were employed in marketing and sales occupations in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Occupations in various sales fields offered employment to an estimated 151,840 Kansas workers in 1998, including supervisors and managers. Current projections of future employment needs and anticipated annual job openings were not available.

National: Approximately 15.3 million workers were employed in marketing and sales occupations in 1998, with 17.6 million jobs projected by 2008 (+15%). Approximately 4.3 million average annual openings, including replacements, are anticipated.

Salary Information

Greater Kansas City Area: Sales representatives, except retail and scientific and related products and services, earned an average annual wage of \$55,078 in Johnson, Leavenworth, Miami and Wyandotte Counties in 1998, and sales engineers earned \$57,741, on the average.

State: Sales representatives, except retail and scientific and related products and services, earned an average annual wage of \$40,248 in Kansas in 1998. Half of those in this occupational category earned less than \$35,090 and half earned more.

National: Median annual earnings of sales representatives, except retail, were \$36,540, including commission, in 1998. The lowest 10% earned less than \$19,220 and the top 10% earned more than \$83,000 per year. Median annual earnings of services sales representatives in selected business services were \$34,910, including commission, in 1998. The lowest 10% earned less than \$17,640 and the highest 10% earned more than \$79,790 per year.

JCCC Salary and Placement Information

This program has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

SURGICAL TECHNOLOGY

Employment of surgical technologists is expected to grow much faster than the average for all occupations through 2008 as the volume of surgery increases. The number of surgical procedures is expected to rise as the population grows and ages. Technological advances, such as fiber optics and laser technology, will also permit new surgical procedures to be performed. Hospitals will continue to be the primary employer of surgical technologists, although much faster employment growth is expected in offices and clinics of physicians, including ambulatory surgical centers.

Employment Information

Greater Kansas City Area: Surgical technologists and technicians held an estimated 530 jobs in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: Surgical technologists and technicians held an estimated 590 jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Surgical technologists held 54,000 jobs nationwide in 1998, with 77,000 jobs projected by 2008 (+20%). Approximately 9,000 average annual openings are projected, including replacements.

Salary Information

Greater Kansas City Area: Surgical technologists and technicians employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$14.28 in 1998.

State: The average hourly wage for surgical technologist and technicians employed in Kansas in 1998 was \$11.18. Half earned less than \$10.82 per hour, and half earned more.

National: Median hourly earnings of surgical technologists were \$12.39 in 1998. The lowest 10% earned less than \$9.10, and the highest 10% earned more than \$16.84 per hour.

JCCC Salary and Placement Information

This program is a cooperative arrangement with the Metropolitan Community Colleges and has not been offered long enough for salary and placement information to be available on completers.

TRAVEL AND TOURISM

Employment of travel agents is expected to grow about as fast as the average for all occupations through 2008. Many job openings will arise as new agencies open and existing agencies expand, but most will occur as experienced agents transfer to other occupations or leave the labor force. Projected employment growth stems from increased spending on tourism and business travel over the next decade. With rising household incomes, smaller families, and an increasing number of older people who are more likely to travel, more people are expected to travel on vacation--and do so more frequently--than in the past. A variety of other factors will also lead to greater business for travel agents. For example, charter flights and larger, more efficient planes, and competition among airlines that has resulted in lower fares have brought air transportation within the budgets of more people. In addition, American travel agents now organize tours for the growing number of foreign visitors, and often can offer a variety of travel packages at a substantial discount.

However, some developments may reduce job opportunities for travel agents in the future. More people are accessing travel information from their personal computers and making their own travel arrangements. Also, airline companies have put a cap on the amount of commission they will pay to travel agencies. The full effect of these practices have yet to be determined, and many consumers will still prefer to use a professional travel agent to ensure reliability and to save time.

Employment Information

Greater Kansas City Area: Approximately 1,040 travel agents were employed in the Greater Kansas City area in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

State: An estimated 760 travel agents held jobs in Kansas in 1998. Current projections of future employment needs and anticipated annual job openings were not available.

National: Travel agents held approximately 138,000 jobs nationwide in 1998, with 163,000 jobs projected by 2008 (+18%). Approximately 17,000 average annual openings are anticipated, including replacements.

Salary Information

Greater Kansas City Area: Travel agents working in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$11.04 in 1998. Half earned less than \$10.79 per hour, and half earned more.

State: Travel agents earned an average hourly wage of \$10.65 in Kansas in 1998. Half earned less than \$10.22 per hour, and half earned more.

National: Experience, sales ability, and the size and location of the agency determine the salary of a travel agent. Median hourly earnings of travel agents overall and in the passenger transportation arrangement industry, where most worked, were \$11.06 in 1998. The bottom 10% earned less than \$6.62, and the top 10% earned more than \$16.67 per hour.

JCCC Salary and Placement Information

This program is a cooperative arrangement with the Metropolitan Community Colleges and has not been offered at JCCC for a sufficient length of time to provide data from follow-up studies of JCCC career program completers.

VETERINARY TECHNOLOGY

Employment opportunities for animal caretakers (the closest occupational category for which employment projection data were available) are expected to grow faster than the average for all occupations through the year 2006. The growth of the pet population, which drives employment of animal caretakers in kennels, grooming shops, animal shelters, and veterinary clinics and hospitals, is expected to slow. Nevertheless, pets remain popular and pet owners--including a large number of baby boomers whose disposable income is expected to increase as they age--may increasingly take advantage of grooming services, daily and overnight boarding services, and veterinary services, spurring employment growth for animal caretakers and veterinary assistants.

Veterinary technicians and technologists perform medical tests in a laboratory environment for use in the treatment and diagnosis of diseases in animals. They prepare vaccines and serums for prevention of diseases, prepare tissue samples, take blood samples, and execute laboratory tests such as urinalysis and blood counts. Other duties include cleaning and sterilizing instruments and materials and maintaining equipment and machines. Students enrolled in the veterinary technology program study sanitation and animal care, the preparation of animals for surgery, and anesthetic management. They also perform lab work and use radiologic techniques as a part of their career preparation.

Employment Information

Greater Kansas City Area: Veterinary technicians and technologists held an estimated 180 jobs in the Greater Kansas City area in 1998, and veterinary assistants held approximately 240 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

State: Veterinary technicians and technologists held an estimated 360 jobs in Kansas in 1998, and veterinary assistants held approximately 410 jobs. Current projections of future employment needs and anticipated annual job openings were not available.

National: Veterinary assistants held 45,000 jobs nationwide in 1998, with 57,000 jobs projected by 2008 (+28%). Approximately 15,000 average annual openings, including replacements, are anticipated. Veterinary technologists and technicians held 32,000 jobs in 1998, with 37,000 jobs projected by 2008 (+16%) and 3,000 average annual openings anticipated, including replacements.

Career Program Completers: All of the veterinary technology program completers responding to both the short-term and long-term follow-up studies conducted in 1999 were working in a job related to veterinary technology.

Salary Information

Greater Kansas City Area: Veterinary technicians and technologists employed in Johnson, Leavenworth, Miami and Wyandotte Counties earned an average hourly wage of \$10.74 in 1998, and veterinary assistants earned \$7.90 per hour, on the average.

State: Veterinary technicians and technologists in Kansas earned an average hourly wage of \$9.50 in 1998; half earned less than \$9.16 per hour and half earned more. Veterinary assistants earned an average hourly wage of \$7.97 in 1998.

National: Animal caretakers overall earned an average hourly wage of \$7.25 in 1996. The middle 50% earned between \$5.50 and \$9.50, and the top 10% earned more than \$12.50 per hour.

Career Program Completers: An average hourly wage of \$9.30 was reported by completers of the veterinary technology program employed full-time in a job related to veterinary technology who responded to the short-term follow-up study of 1997-98 career program completers which was conducted in January 1999.

Respondents to the 1999 long-term follow-up of 1994-95 career program completers who were employed full-time in a job related to veterinary technology reported an average hourly wage of \$14.75.

None of the veterinary technology program completers responded to the 2000 follow-up studies.

Note. Salary and placement information for JCCC career program completers is based on data supplied by respondents to follow-up studies and is not necessarily representative of all career program completers.

Because the veterinary technology program is a cooperative effort through the Metropolitan Community College District, salary and placement data are collected primarily on students initiating their studies at JCCC and are thus incomplete.

OTHER JCCC CAREER PROGRAMS FOR WHICH MINIMAL OUTLOOK INFORMATION WAS AVAILABLE

Business Entrepreneurship

JCCC's business entrepreneurship program teaches the fundamentals of starting and operating a business. Course work covers preparing a business plan, obtaining financing, planning advertising and sales promotions, marketing a product or service and developing an accurate accounting system. Entrepreneurs who already have their business established can strengthen their managerial and business skills through this course of study.

Three business entrepreneurship program completers responded to the 2000 short-term follow-up study of 1998-99 career program completers. Of those, one was employed in a related job and reported an average hourly wage of \$12.00, and the other two were working in unrelated jobs.

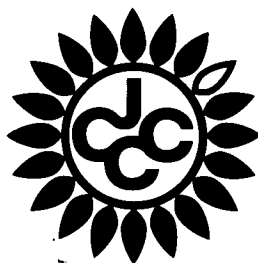
Industrial Programmable Controls

The industrial programmable controls program was developed to meet the needs of manufacturing, business, and industry for workers skilled in sequencing operations by means of microprocessor-based equipment rather than through the use of electrical wiring, motors, belts, etc. The industrial programmable controls certificate was designed for electricians, electronics technicians, engineers, maintenance personnel and others involved in industrial processes. The courses teach programming for relay logic, timers, counters, block transfer, analog and networking. Salary and placement information for completers of the industrial programmable controls certificate program is integrated into the overall results for the electronics program.

Interpreter Training

JCCC's interpreter training program concentrates on developing skills in American Sign Language, deaf culture and finger spelling interpretation. As the population grows, so will the number of people with hearing problems and the need for interpreters.

All of the respondents to the short-term follow-up study of the 1998-99 career program completers conducted in January 2000, and 83% of the respondents to the long-term follow-up study of the 1995-96 completers conducted in summer 2000 were working in a job related to interpreter training. Respondents reported an average hourly wage of \$15.43 and \$17.92, respectively.



Johnson County Community College
Office of Institutional Research
12345 College Blvd.
Overland Park, KS 66210-1299



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Organization/Address: 12345 College Blvd., Inst. Research Overland Park, KS 66210-1299	Telephone: (913) 469-8500 FAX: (913) 469-4481 E-Mail Address: kconklin@jccc.net Date: 4-24-01

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